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# SCHOOL LIFE

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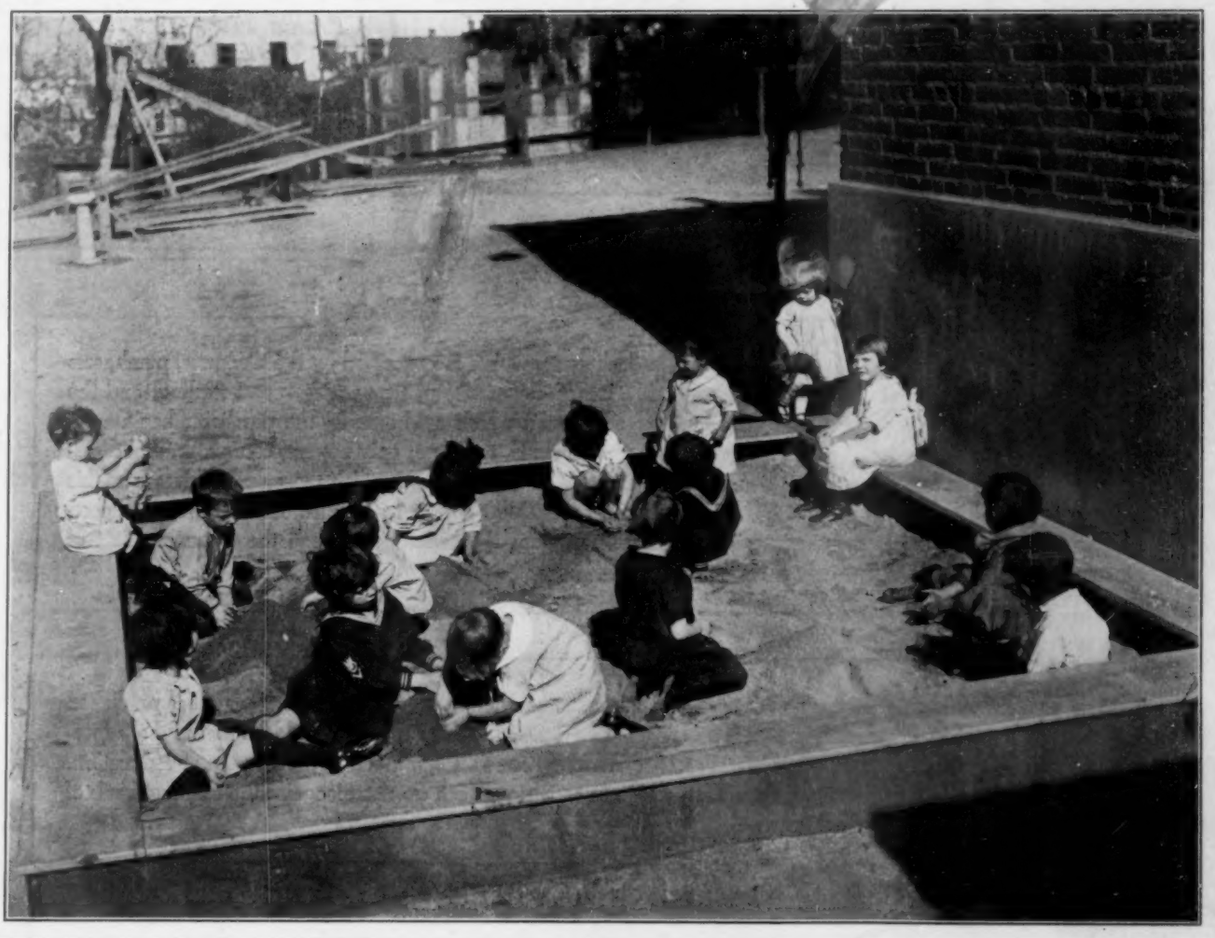

PLAYGROUND OF A DAY NURSERY IN LOS ANGELES, CALIF.

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# SCHOOL LIFE

*Published Monthly, except July and August, by the Department of the Interior, Bureau of Education*
*Secretary of the Interior,* HUBERT WORK - - - - - *Commissioner of Education,* JOHN JAMES TIGERT

VOL. X · WASHINGTON, D. C., MAY, 1925 No. 9

# Relative Values of Physical Activities in High Schools

***Suggestions for Bases of Measurement. Conclusion Reached that Walking is Most Valuable of all Exercises, and Every High School Should Encourage Hikes. Volley Ball, Playground Baseball, and Swimming Follow in Usefulness and Availability. Long-distance Racing is Last of 16 Activities. "Major Athletics" Best for Promoting School Spirit but Low in Value as Exercise***

By HENRY S. CURTIS, M. D.
*State Director of Hygiene and Physical Education for Missouri*

ONE of the most significant advances in education during the past two decades has been in methods of measuring progress. Physical education has been at a great disadvantage in that it has had neither a measure of the values of its different activities, nor of progress toward their accomplishment. In offering the following scale (Table II), there is no thought that an absolute measure has been found. This paper is not a discussion of interschool athletics, nor of athletic activities in themselves, but only an attempt to measure their relative value in the high-school program.

The activities chosen are the ones that are already found in high schools. The characteristics on which they are rated have been selected as significant in conference with classes at Washington University and the University of Missouri. The activities are rated on the following nine points: Their appeal; their value in creating loyalty and cooperation; their exercise value; whether safe or dangerous; their value in producing good posture; the percentage of pupils who take part; the extent to which they are practiced outside, and the number of years they are continued.

### *Should Appeal to Students—not Spectators*

The first characteristic studied is the appeal to the student body, by which is not meant its appeal to the spectator, but to the participant. Nearly 60 per cent of high-school students are girls. Even though football were the first choice of all boys, its appeal would still be to only about 40 per cent of the student body. Physical education is much more important for girls than for boys in the school program, inasmuch as boys are much more free and are more encouraged to organize their own activities outside. A much larger part of the girls' physical education must come through the school. Health, grace, and beauty, which are by-products of physical education, are much more significant for girls. The question of appeal is often greatly modified by the participation of upper classes, by the facilities offered by the publicity received, and by the quality of teaching. Hockey or soccer will not have any appeal in a community in which they are not played. The rating of appeal here given is based on the supposition that the game is played in the community, as hockey is in England, or as volley ball is in certain communities.

### *Swimming the Most Attractive Exercise*

In giving this rating of the 16 activities, they are so arranged that the one having the highest appeal is numbered 16 and the one with the least is numbered 1. According to this arrangement, swimming, which appeals to nearly all boys and girls, ranks highest. In city playgrounds it is found that children will go a mile and a half to a swimming pool, where they will not go more than a half mile to any other athletic facility. Basketball probably ranks second, and soccer third. At the bottom of the list is field athletics, by which we mean the hammer throw, the shot put, the discus, and javelin. In giving this rating we do not claim an absolute ratio, or that swimming has sixteen times the appeal of field athletics, but merely a relative ranking.

### *Value Increased by Social Enjoyment*

Appeal of the activity to the child is important, because it is the determining factor in its practice outside of school and continuance in future life. The value of activities that are enjoyed is much greater both physically and socially than of activities which are not enjoyed.

The second value is loyalty. Loyalty is fundamental in good citizenship, in community membership, and in a democracy. The great school of loyalty is the team game. It reaches its fullest expression in football, though all team games cultivate this virtue. On the other hand unorganized and individual activities, such as field athletics, jumping, and swimming have practically no value in the development of loyalty, though incidental to any activity there may be loyalty to a leader.

The third test is cooperation. This is intended to include a series of social qualities such as cooperation, honesty, sportsmanship, and the like. In this the rating is almost identical with that in loyalty.

The fourth characteristic is the value of the activity as exercise. Here two considerations are fundamental; first its health and growth value, which comes mostly from the open air, sunlight, and the development of the vital systems of the body; second, how far does the train-

An address delivered before Missouri State Teachers' Association.

43063°—25†——1

ing given meet the needs of modern life. In this column soccer stands first; volley ball second; the short races third, and field athletics last.

The fifth rating is on safety or danger. On this basis, we have estimated football to be most dangerous, swimming second, and basketball third, while tennis, walking, and dancing appear to be about equally safe. Safety, however, is not as important as the other values selected. That danger might not be overemphasized, I have divided each of these scores by 2.

### *Posture Largely Dependent on Muscular Tone*

The sixth score is on the corrective value of the exercise. Here gymnastics is given the first place and volley ball the second, though this does not apply to the majority of gymnastics. Most of the other exercises have practically no direct corrective value, but inasmuch as good posture is largely a matter of muscular tone, any exercise that improves this will have a certain value in improving posture. The exercises which do not have a direct value, but do have an indirect one, are given an arbitrary value of 4 in this scale.

Adding the six scores together, we secure a total score for each activity, and by dividing this total by 6 we have an average value of a class period of exercise. In this total, soccer stands first, volley ball second, basketball third, baseball fourth, and field athletics last.

What percentage of the students take part? It is possible for all to take part in walking gymnastics, playground baseball, swimming, tennis, short track events, and in volley ball, but in the half mile and the mile, the discus and the hammer throw, not more than 10 per cent participate. Multiplying the average value by the per cent taking part, we get the value of a period for the student body. In this column volley ball stands first, soccer second, playground baseball third, and field athletics last.

### *Exercises that Influence Later Life*

But not all of education is obtained in school. This is particularly true of physical education where outside activities have at least as much to do with physical development as school exercises. One of the best criteria of value is how far the activity is carried over to out-of-school hours. We estimate that for every period given to walking we shall get four hours of walking outside; for each period given to baseball, football, and swimming, in the school program, we shall get two hours of practice outside. For basketball, dancing, field athletics, hockey, soccer, tennis, and the longer and shorter track we shall get one hour. For jumping, playground baseball, and volley ball we estimate only one-half hour. Multiplying the value which each exercise has per period for the student body by the number of hours' practice obtained, we have a new score, in which walking ranks first, soccer second, volley ball third, and field athletics last.

### *Walking First in Life-Long Usefulness*

The final test of value for any activity is how far it carries over into life, how many months or years it is practiced after it has been taught at school. It is impossible to give a score on which all would agree, because different activities are practiced for different lengths of time in different communities, depending upon their popularity, the extent to which provision is made for them in the community, the social tradition, and many other things. A satisfactory rating can be given only on the supposition that the activity is practiced and that there are reasonably satisfactory facilities for it. We could not justly rate soccer on the extent to which it is now practiced in America. We must rate it rather on its popularity in England. Likewise, we can not rate volley ball on its popularity in Missouri at present, but rather in the Young Men's Christian Association and in colleges where for a number of years it has had a fair chance. On this basis, we estimate that walking, dancing, swimming, and volley ball may be carried on for 50 years, tennis for 40, hockey for 30, playground baseball and soccer for 20, while gymnastics ordinarily is not practiced outside. Multiplying the exercise value of the lesson by the number of years continued, we get a life value for the activity in which walking ranks first, swimming second, volley ball third, tennis fourth, and field athletics last.

The differences in values in Table I, running from 0.56 to 1,060, are startling. It is not claimed, of course, that swimming is one thousand times as valuable as field athletics. It may be only one hundred times as valuable. It may be that volley ball is not thirty times as valuable as football, but it would be almost impossible to score these activities on the characteristics indicated and have these scores reversed. I have gone over these tables a number of times and never score the activities twice alike, but the variations seldom make any difference in the relative rating. I have had these activities scored, too, by a number of university classes. There is great difference of opinion as to the value of the different activities, but the rating always comes out nearly the same.

### *Field Athletics of Relatively Low Value*

In this total, the javelin, discus, long races, and football score from 0.56 to 19 in a column where swimming scores 870. The major athletics as a whole rank very low. This would not indicate, however, that the major athletics should be dropped. The great value of the so-called major athletics does not consist in their value as exercise, but in their effectiveness in creating school spirit and loyalty. Their effect on the spectator is much more significant than their effect on the team.

We are not concerned wholly, however, with the question of what is desirable in athletics or physical education, but to about an equal degree with what is feasible. We must often consider the cost involved and the space required. The cost of swimming and hockey is prohibitive so far as most schools are concerned. This may be said also of a gymnasium or equipping the student body with the armor necessary to play regular football. Likewise, space is a prohibitive factor in baseball, football, and hockey. Rating these activities on the basis of an average cost and space requirement, again walking ranks first, jumping second, volley ball third, playground baseball fourth, dancing fifth, and basketball sixth.

### *Walking Ranks Above all Other Exercises*

Combining the rating of these activities as exercises with their rating on feasibility, we get a score in which walking ranks first, volley ball second, playground baseball third, and tennis fourth, showing that the ones with the greatest exercise value are also the most feasible ones in a school system. In all of these ratings, the value of the shot put, hammer throw, and discus in the high-school program is negligible. The long races make but little better showing. Gymnastics may be ranked too low, but could scarcely be given a primary place. Football is well down toward the bottom of the list. It is very difficult to score dancing, because dancing is of many varieties. Social dancing, folk dancing, æsthetic dancing, and interpretative dancing each have different values. The score has been given for a type of dancing which is found in high school, so far as any dancing is found, which means a combination of social

TABLE I.—*Feasibility in a school system*

| | Cost | Space | Average | Rating on feasibility | Rating on exercise | Combined rating | Rating in a high-school program |
|---|---|---|---|---|---|---|---|
| Baseball | 12 | 1 | 6.5 | 13 | 10 | 11.5 | 11 |
| Basket ball | 10 | 7 | 8.5 | 5 | 11 | 8 | 8 |
| Dancing | 2 | 13 | 7.5 | 10 | 8 | 9 | 10 |
| Field athletics (discus, hammer, etc.) | 9 | 6 | 7.5 | 11 | 16 | 13.5 | 14 |
| Football | 4 | 2 | 3 | 16 | 12 | 14 | 15 |
| Gymnastics | 3 | 11 | 7 | 12 | 14 | 13 | 13 |
| Hockey | 5 | 3 | 4 | 15 | 7 | 11 | 11 |
| Jumps | 15 | 15 | 15 | 2 | 12 | 7 | 7 |
| Playground baseball | 14 | 10 | 12 | 4 | 6 | 5 | 3 |
| Soccer | 11 | 4 | 7.5 | 9 | 5 | 7 | 6 |
| Swimming | 1 | 14 | 7.5 | 8 | 2 | 5 | 4 |
| Tennis | 7 | 9 | 8 | 6 | 4 | 5 | 5 |
| Track 220− | 8 | 8 | 8 | 7 | 9 | 8.4 | 9 |
| Track 220+ | 6 | 5 | 5.5 | 14 | 15 | 14.5 | 16 |
| Volley ball | 13 | 12 | 12.5 | 3 | 3 | 3 | 2 |
| Walking | 16 | 16 | 16 | 1 | 1 | 1 | 1 |

dancing and folk dancing. Dancing may be had without any cost, but for class purposes a gymnasium floor is practically necessary, so the cost score is about the same as for gymnastics.

This is a study of the value of physical activities in the high-school program. If, instead, it had been a study of the value of the physical activities in the elementary-school program, the same activities would have been yet more strongly emphasized, while the major athletics would have held a yet lower place. The sports which seem to have the greatest value at school and in life are walking, volley ball, playground baseball, tennis, swimming, dancing, soccer, jumping, basket ball, and the short races. These are also much the cheapest to provide. They require the least space. They should be furnished in all school systems.

Probably walking represents nine-tenths of all the physical energy most of us develop, outside of the vital processes themselves. It is the only activity that most of us continue in after life. It is said that in walking 20 miles we raise the weight of our bodies vertically 1 mile. It is a decided advantage for students to have a good walk to and from high school. It is not necessary that the high school should be placed in the center of the city. Every high school should have a walker's guide and develop a series of 20 to 30 walks of from 5 to 20 miles each.

TABLE II.—*Value of physical activities in high school*

| | Appeal | Creates loyalty | Demands cooperation, etc. | Exercise value. | Safety | Corrective value | Total score per period | Average value | Rating on value of a class period | Per cent of pupils participating | Average value to student body | Hours of exercise per lesson given | Exercise value of lesson | Years continued | Life value | Rating on total score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baseball | 7 | 14 | 14 | 8 | 5 | 4 | 52 | 8.6 | 4 | 40 | 3.4 | 3 | 10.2 | 10 | 102 | 10 |
| Basket ball | 15 | 13 | 13 | 11 | 2 | 4 | 54 | 9.6 | 3 | 50 | 4.8 | 2 | 9.6 | 6 | 58 | 11 |
| Dancing | 8 | 0 | 0 | 2 | 7 | 0 | 17 | 2.8 | 13 | 60 | 1.7 | 2 | 3.4 | 50 | 170 | 8 |
| Field athletics | 1 | 0 | 0 | 1 | 2 | 0 | 4 | .66 | 16 | 10 | .07 | 2 | .14 | 4 | .56 | 10 |
| Football | 6 | 16 | 16 | 7 | 1 | 4 | 48 | 8 | 7 | 20 | 1.6 | 3 | 4.8 | 4 | 19.2 | 12 |
| Gymnastics | 2 | 0 | 5 | 9 | 3 | 15 | 34 | 5.7 | 10 | 100 | 5.7 | 1 | 5.7 | 1 | 5.7 | 14 |
| Hockey | 5 | 12 | 12 | 12 | 4 | 4 | 46 | 8.1 | 6 | 40 | 3.2 | 2 | 6.4 | 30 | 192 | 7 |
| Jumps | 4 | 0 | 0 | 4 | 3 | 0 | 11 | 1.8 | 14 | 70 | 1.3 | 1½ | 1.9 | 4 | 7.6 | 13 |
| Playground baseball | 12 | 11 | 11 | 6 | 6 | 4 | 47 | 8.1 | 5 | 100 | 8.1 | 1½ | 12.2 | 20 | 244 | 6 |
| Soccer | 14 | 15 | 15 | 16 | 4 | 4 | 64 | 11.3 | 1 | 80 | 9 | 2 | 18 | 20 | 360 | 5 |
| Swimming | 16 | 0 | 0 | 13 | 1 | 7 | 35 | 6.1 | 9 | 100 | 6.1 | 3 | 18.3 | 50 | 965 | 2 |
| Tennis | 13 | 9 | 6 | 5 | 7 | 4 | 44 | 7.3 | 8 | 100 | 7.3 | 2 | 14.6 | 40 | 584 | 4 |
| Track 220− | 11 | 0 | 0 | 14 | 5 | 4 | 34 | 5.6 | 11 | 100 | 5.6 | 2 | 11.2 | 10 | 112 | 9 |
| Track 220+ | 3 | 0 | 0 | 3 | 1 | 4 | 11 | 1.8 | 15 | 10 | .18 | 2 | .36 | 5 | 1.80 | 15 |
| Volley ball | 10 | 10 | 10 | 15 | 6 | 14 | 65 | 10.8 | 2 | 100 | 10.8 | 1¼ | 16.2 | 50 | 860 | 3 |
| Walking | 9 | 0 | 0 | 10 | 8 | 4 | 32 | 5.3 | 12 | 100 | 5.3 | 4 | 21.2 | 50 | 1,060 | 1 |

## Many American Universities are Heavily Endowed

Million-dollar endowments are possessed by 121 American universities. Naturally most of them are institutions under private control. State universities as a rule are not heavily endowed, and only 18 of them are in the millionaire class so far as their productive endowments are concerned. According to figures recently compiled by the Department of the Interior, Bureau of Education, Harvard University, with an endowment of $53,031,769, is the richest educational institution in the United States. Columbia is next, with $41,300,909, and Yale, Leland Stanford, Chicago, Cornell, Johns Hopkins, Carnegie, Princeton, Rochester, and Pennsylvania follow in the order named.

Harvard is first, too, in the value of buiidings, grounds, and equipment, for its plant is worth $22,800,000. Yale is a close second with $21,089,690; and Columbia, Pennsylvania, Chicago, Massachusetts Institute of Technology, and Leland Stanford follow in the list of private institutions.

University of Texas is the wealthiest State university in its endowment, for it has $11,013,028. California follows, with $8,407,775; then Washington, Minnesota, and Oklahoma, all of which have comfortable permanent funds. In value of property and equipment, University of California holds first place among State universities, with $17,782,539. Minnesota is next, with $14,759,642, and Michigan, Illinois, and Wisconsin follow in close succession.

## Hopes to Reproduce New England Farm Life

A junior college and preparatory school of individual type has been founded at Avon, Conn., and will be opened September, 1927. The college property, known for a century and a half as Old Farms, consists of 2,000 acres, half of it forest, bordering on the Farmington River. The boys will do community work on the farm and in the shops, but Avon College will be essentially a cultural institution, and no trades will be taught. The aim is to reproduce the New England farm life of a few generations ago, and to offer a well-rounded program of activities which will develop equally the soul, mind, and body of each boy.

## Apprenticeship Combined with School Work

### *Boys Who Can Not Attend High School Are Enabled to Earn Living After Leaving Elementary School*

THROUGH cooperation of the school authorities of Ponce, Porto Rico, with employers in various trades, 45 boys in the eighth grade of the city schools received apprentice training after school hours, which enabled them to earn their living when the school year was over. This plan was instituted as an experiment to find out how industrial training can be given in the way best suited to local conditions so as to enable pupils who can not afford to go to high school to enter skilled work after completing the elementary grades.

The school authorities visited all the shops of the city, including bakeries, tailoring establishments, carpenter shops, potteries, photograph studios, blacksmith shops, and others, and explained the plan of apprenticing the boys after school hours. The shopowners, without exception, commended the idea and offered their help. After an investigation of the hygienic and moral conditions of the various shops, and the quality of work done, 14 shops were chosen, representing 11 trades, and the boys were assigned to the kind of trade they liked best.

The boys worked in the shops from 4 to 5 o'clock on school days and also a part of Saturday afternoons, averaging about six hours a week. Every week the shop managers filled in a report card to inform the school supervisor of the boys' attendance, diligence, and deportment. The principals of the schools attended by the boys commended the pupils with good records and urged those with poor records to do better.

It is expected that training the boys to become skillful in trades will develop in them a taste for engaging in this kind of work, and that other boys will be encouraged to take up trades. This will help to interest the people of the city in developing the arts and industries.

New York State College of Home Economics was established in connection with Cornell University by a recent act of the New York Legislature. It is claimed that it is the first college of its kind in the world.

Teaching evolution is barred in the public schools of Tennessee. A law prohibiting such instruction was passed by both houses of the sixty-fourth general assembly and was signed by the governor.

# United States Navy a Trade School of Extraordinary Scope

***Fundamentals of 22 Trades Taught in 36 Schools. Instruction Continued with Actual Experience at Sea. Life of a Recruit Resembles that of a Schoolboy. Intelligence Tests Play Important Part. Close Correspondence Between Results of Classification Test and Advancement for Satisfactory Service. Training of Navy Applicable to Civilian Occupations after Men Leave Naval Service***

By CURTIS D. WILBUR, *Secretary of the Navy*

A PREVIOUS ARTICLE upon this subject in SCHOOL LIFE dealt with the wide diversity of occupations aboard a modern naval ship. It also outlined the general plan which enables the Navy Department to make its own vocational experts from the thousands of untrained men recruited every year. It was shown that it is necessary for the Navy to train most of these men to do the work of definite Navy trades, which are just as specific and just as technical in their requirements as the corresponding trades in civil life, because the repair work and upkeep of the ships at sea require the services of skilled mechanics, who can not be recruited from civil life.

The transition from civilian life to the life of a sailorman entails many changes in a recruit's mode of living. The first part of the training of every new recruit must deal, therefore, with his personal habits and reactions, and must indoctrinate him with the principles of personal hygiene and obedience to orders. When a new recruit goes aboard a crowded ship, he can not be lacking in habits of personal cleanliness, nor ignorant of the proper means of caring for himself and his belongings, without being a nuisance or a menace to other men who must live with him. He can not be entirely ignorant of the common routine, and of the naval customs on board ships, or he will be a hindrance to the necessary work and drills.

### *Careful Watch for Contagious Diseases*

From the recruiting offices throughout the country, where all men are given a thorough physical examination before they are accepted for enlistment, the new recruits are sent to one of the four great training stations, located at Hampton Roads, Va.; Newport, R. I.; Great Lakes, Ill.; and San Diego, Calif. For the first three weeks after their arrival there they are kept at the "receiving unit" of these training stations. These are isolated units where all new recruits receive their first outfit of naval clothing, bedding, etc., of a total value of about $200; where they are inoculated against typhoid fever and vaccinated against smallpox; where they actually begin their training. These three weeks cover the incubation period of contagious diseases to which the men may have been exposed, and during that time they are quartered in small groups and are under constant medical observation.

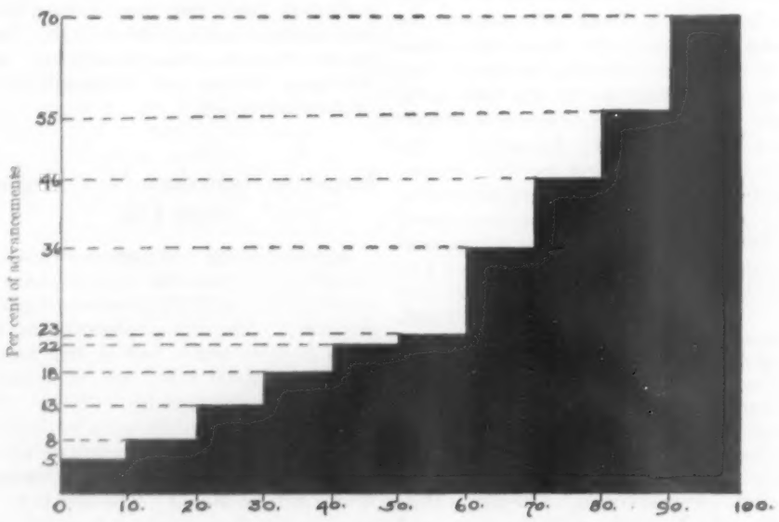
### *Introduction to Duties of Naval Life*

When the recruit goes from the receiving unit to the main barracks of the training station he becomes a member of a well-organized military company. In addition to military training he receives instruction in swimming and in the handling of small boats. He gets an elementary idea of seamanship and nomenclature of parts of the ship. He learns something of the ordinary routine on board which will save him some of the helplessness that a landsman often feels at the beginning of his first cruise. But most important of all, he learns to respond quickly and intelligently to orders and to lay the foundation for that neat orderliness which characterizes the average man-of-war's-man, no matter what his previous training may have been.

One of the most noticeable results of training at our naval training stations is the decided improvement in the physical condition of the average recruit. This is due partly to the proper medical and dental treatment given to those in need of it. It is due also to the regular hours required of men; to the drills; to the setting-up exercises; and to the substantial, well-cooked food, served under sanitary conditions and at regular hours. The weight of each recruit is recorded when he reaches the station and again when he is sent to sea. It is not unusual for a man to gain 15 or 20 pounds in weight during his first eight weeks at the training station, and records show that the average gain for all recruits during this period is more than 6 pounds.

### *Diversions to Maintain Recruits' Morale*

Some restlessness and homesickness are inevitable at training stations, as at any school, where many boys are away from home for the first time, but every effort is made to keep the new recruit busy and contented. Well-stocked libraries, church services, moving pictures, recreational facilities, and athletic contests, all free to the recruit, help to care for his leisure hours. Occasional leave is granted for




Relation between general intelligence and ability to win advancement in the Navy. The graph shows that only 5 per cent of the men who make less than 10 on the general classification test advance in the first year of their service and that 70 per cent of the men who make between 90 and 100 advance within that same period.

visits to near-by places. Every training station has a station football, baseball, basket ball, and track team. Interstation championship series are arranged which improve the spirit and morale in the same way that these athletic contests do at any boys' school or college.

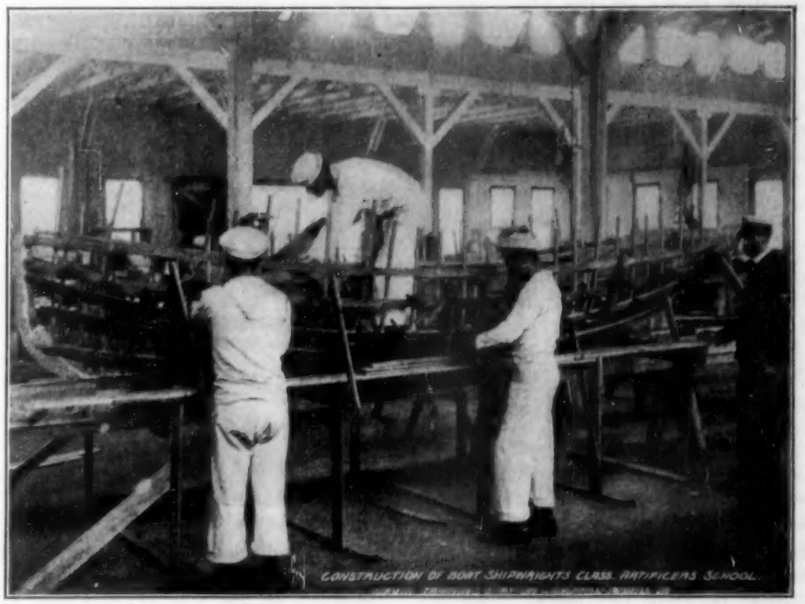
When the recruit arrives at the training station, official letters are written to his parents or next of kin—usually a formal letter from the commandant announcing his arrival, and a more personal letter from the chaplain giving his correct address for letters and urging them to write regularly to the man. Every facility and encouragement is offered to induce men to keep in regular correspondence with their homes, for this has been found to be an important factor in contentment and morale.

### *Preferences and Previous Training Considered*

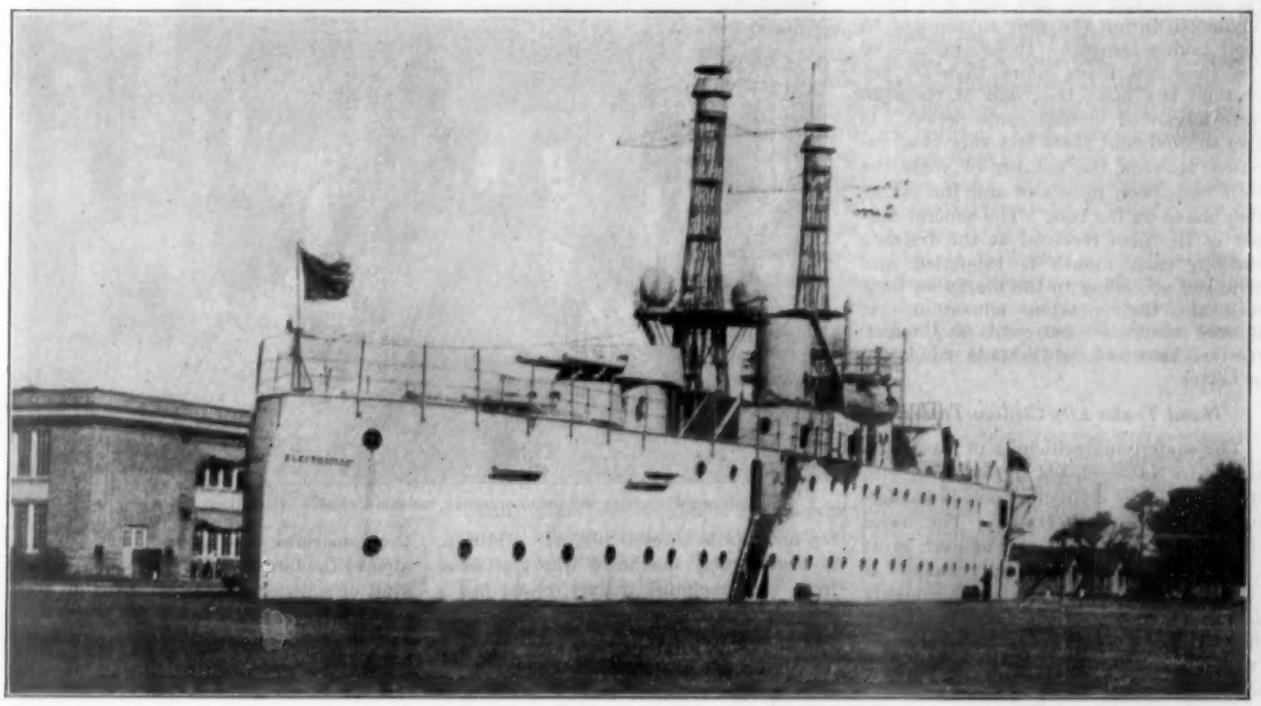
A majority of the recruits leave the training station at the end of eight weeks to continue their training aboard the ships to which they are assigned, but a large number of them are selected for vocational training in the naval trade schools maintained at these same stations. In selecting men for this additional training in the trade schools their own preference, their previous education, and vocational experience are considered.

At present every recruit received at training stations is given a general intelligence, or "general classification" test, and this is proving useful in selecting men who will profit most by intensive training in the trade schools. The "general classification test" consists of 100 questions. The recruit works against time. At the end of an hour he is graded upon the number of questions he has answered correctly. Standardized tests to determine the natural aptitude of men for mechanical trades, clerical work, and for work in radio are also carefully tried out, with results that indicate a selective value in such tests when carefully applied.

The Bureau of Navigation, which is the personnel branch of the Navy, receives and keeps on file a detailed record of the proficiency marks, advancement, and conduct of every man in the naval service. From these records a study has recently been made to determine the relationship which exists between a man's education previous to enlistment, his marks on the general classification test, and his ability to win advancement in the Navy. The records of 1,000 men, who had been given the test approximately one year prior to the analysis, were chosen at random, re-

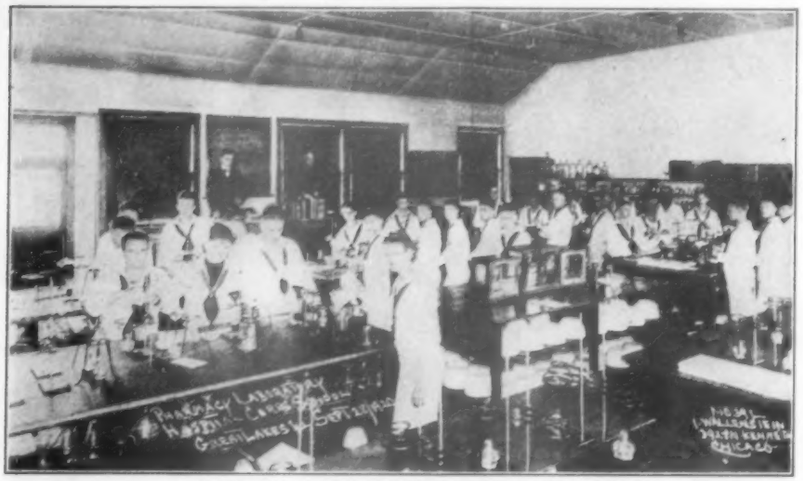



Shipwrights' class, artificers school, Hampton Roads, Va.



"U. S. S. Electrician" fully equipped with all the modern electrical devices of an up-to-date war vessel

gardless of the type of duty they had performed during that year. All had been in the service less than 15 months. From the information contained in the individual records of these men regarding his change of status during the year subsequent to his having taken the test the information shown on the accompanying graph was plotted. It will be noticed that the graph shows a very pronounced relation between the marks made by these men on the tests and their ability to master a naval trade and win advancement in the service. The sharp rise in the curve of advancements for men making more than 60 per cent on this test is characteristic of all investigations made thus far. The analysis showed that 43 men in the thousand made less than 20 per cent on the test, and only 3 of these advanced during the year subsequent to their taking the test. In contrast, 43 of the thousand made more than 90 per cent on the same test, and of these 30 were advanced in that same period. It also showed that there is a very close relation between the number of years the men have been in school and the marks they make on the test. The general caliber of the men received at the training stations each month is tabulated and arranged according to the marks on their tests and their previous education. At present about 70 per cent of the men received have had eighth-grade education or better.



School for pharmacist's mates, Great Lakes Training School

### *Naval Trades Like Civilian Trades*

The underlying principles of the trades taught in Navy schools are identical with those taught by civilian schools in connection with the same trades. The naval electrician, radioman, or engineer must know the same fundamental principles of electricity, radio, or steam, as thoroughly as men following similar trades in civil life. Much of the practical work of these trades that is taught in the Navy trade schools is identical with the practical instruction in any civilian trade school. But in the Navy every effort is made to familiarize the man with the same types of equipment and the same types of jobs that he will find on board ship. In every trade school the equipment used for the instruction of the men in any particular trade is the standard equipment of the Navy ships in service.

At the radio schools, men are drilled in operation until they can "send" and "receive" at the rate of 20 words per minute. They also study the underlying principles of radio, and learn the upkeep and repair of the same type of equipment they will find on ships and at radio stations. The course for machinist's mates covers much the same ground as courses for machinists in civil life. In addition, however, every machinist who graduates from the machinist mate's school has a fundamental operating knowledge of marine engineering. He has learned how to operate steam engines, how to locate and repair their faults, and is familiar with the regulations governing the care and upkeep of all types of machinery that he will find on board ship.

### *A Novelty in Trade-School Construction*

Probably the best example of the degree to which the Navy equips its trade schools is given in the U. S. S. *Electrician* shown in the accompanying illustration. As can be imagined, naval electrical installations are peculiar to the Navy itself. They are designed and laid out to keep the ship operating electrically during casualties in battle. The naval electrician must be familiar with this particular layout. To make him so, the Navy has built for the use of men in the electrician's school at Hampton Roads, Va., this huge wooden battleship, the U. S. S. *Electrician*. The ship is constructed to scale, and is equipped electrically the same as a modern battleship. Aboard this wooden man-of-war the Navy's embryo electricians work with the installations they will actually find at sea. The lighting circuits, the ventilating systems, the turret-training and gun-elevating gear, the gunfire control systems, and even the huge searchlights are all included. Could the equipment of any trade school in civilian life be more complete? Of course the ship is fitted with classrooms, and in these, with standard equipment, the students receive theoretical instruction in electricity.

There are schools for aviation mechanics and riggers, aviation pilots, hospital apprentices, pharmacist's mates, and coppersmiths; there are courses, too, for the musicians who make up the bands aboard the larger ships. The number and kind of schools in operation at any time varies with the needs of the service. At present 36 trade schools are in operation, teaching men 22 different naval trades.

Class in valve setting and engine operation, machinist's mates school, Hampton Roads, Va.

The greater part of naval training is done at sea. The recruit who is sent

directly to a ship, after only eight weeks at the training station, must receive the instruction which will make him proficient in his particular trade or "rating"; the one who goes through the trade school ashore must continue under training when he goes to sea. This continuous instruction is possible because our Navy has always placed its main dependence for training in a corps of highly trained officers, capable of giving the best type of instruction to the men of their commands. The proper training of his men is one of the recognized responsibilities of every naval officer. It is one of his most important functions; for the efficient ship is the one whose men are trained to operate the guns and engines with maximum efficiency; to maintain a perfect system of visual and radio communications, and to perform effectively all the other widely varied duties which go into the upkeep and operation of a modern man-of-war. At training stations and trade schools the work of instruction is done by officers and petty officers detailed for this particular duty. At sea it is carried on by the regular officers of the ship. Even at the distant insular stations, men are under instruction and have a chance to advance themselves in the naval service.

### *Text-Books Prepared for Specific Needs*

The lack of textbooks that exactly meet the needs of men in many of the naval trades has been a serious problem. The Bureau of Navigation is finding the solution of this problem in the Navy education study courses. Some of these courses cover general subjects, such as mathematics, English, and history, but many of them are compiled by officers in the Navy Department, to fit the exact needs of men in naval trades. They make excellent textbooks for class instruction, or for the voluntary study of ambitious men. As a rule, men can do more for the Navy, as well as for themselves, by studying subjects directly related to their regular work. The electrician who studies a course related to that trade and gets practical laboratory experience in his daily work will learn more and will advance more rapidly in his trade than the electrician who studies courses having no relation to his work. Many of the men need more work in fundamental subjects, such as mathematics, and these are usually taken at the same time as their trade courses.

### *Naval Service Demands Specialization*

The days of the "jack of all trades and master of none," of "wooden ships and iron men," are past. The Navy of to-day is made up of a corps of trained specialists in both the commissioned and enlisted personnel. Thousands of dollars are spent annually in training these specialists. The fundamentals of Navy trades are the same as corresponding trades in civil life. If the man trained in the Navy decides to reenlist at the expiration of his enlistment, he finds advancement waiting for him as he qualifies for more important work in his trade. If he does not reenlist, he has learned the fundamentals of his trade and can readily adapt himself to the specialties of civil life. It is a pleasing commentary upon the success of Navy training that 70 per cent of our trained men are now reenlisting to take advantage of the many opportunities offered by continuous service in the Navy.

## Vocational Education for Alaskan Natives

A comprehensive industrial and vocational school system for the native Eskimos and Indians of Alaska, the first in the history of this Territory, is now in the course of establishment. Through the Bureau of Education of the Interior Department plans have been completed for the inauguration and operation of three vocational schools at central points in Alaska. The sum of $50,000 will be expended for new buildings. Two of these schools are already in operation with an enrollment of several hundred Eskimo and Indian pupils. Additional schools, exclusively for industrial training, are to be established within the near future.

Expansion of the proposed industrial education of the natives is expected to be readily accomplished through an act passed by Congress before the adjournment of its recent session authorizing the Secretary of the Interior and the Secretary of War to transfer to the Bureau of Education any unoccupied Government buildings in Alaska. There are a number of abandoned military reservations that are available for school purposes, and it is expected that they will be used for the establishment of vocational schools. Practically all of them are of such size as to accommodate a large number of pupils.

One of the first of these abandoned military posts that will probably be taken over by the Bureau of Education is Fort Gibbon, located near Tanana, Alaska. This post has not been occupied by troops for some time.

During the past five years Indiana has enacted advanced educational laws covering a minimum wage for teachers, school attendance, an improved teacher retirement fund law, and the certification law which requires that all teachers must have 36 weeks of special training for school work.

## Colleges Cooperate in Training Scout Leaders

***Corps of Teachers Maintained by Girl Scouts Conduct Courses in Many Institutions. Students Juniors or Seniors.***

GIRL-SCOUT leaders are trained in regular courses at about 90 institutions for higher education in 27 States. More than half of these courses are given by instructors under the supervision of the education department of the Girl Scouts (Inc.) and the rest by regular faculty members or by representatives of local girl-scout troops.

In the courses offered by the Girl Scouts (Inc.) the classes are conducted as far as possible in the form of scout troop meetings. Each class includes from 16 to 40 members, and these are divided into patrols of 6 or 8 students each. Reading is assigned on social, psychological, and educational topics, but most of the work consists of demonstrations of scout procedure and other practical activities. Local girl-scout troops usually cooperate with the college classes. Special emphasis is placed upon problems of leadership and troop management. Various forms of group recreation, such as quiet and active games, singing, story telling, folk dancing, etc., are included in the program. The class usually plans and carries out a hike with a girl-scout troop.

These courses are especially designed for regular students in the junior or senior year of their college work who are looking forward to volunteer work with growing girls, but they are open to girl-scout officers and to other young women interested in recreational and civic work with young people if the college approves. The courses emphasize the idea that scouting is recreational in spirit and method although educational in purpose. Each course consists of 10 or 15 meetings of an hour and a half or two hours each. The expenditure for fees and material is nominal. Whether college credit is given for the work depends upon the individual institution. For this work the education department of the Girl Scouts (Inc.) maintains a staff of four full-time and three part-time instructors under the supervision of an educational secretary.

Illinois laws require every schoolroom to have proper heat, light, ventilation, seating, and sanitary facilities. This has resulted in great improvement in one and two room buildings in the open country where county superintendents have had the leadership and courage to enforce the law. During the 10 years that the laws have been in effect 1,128 new schoolhouses have replaced old ones, and others have been remodeled to conform to the law.

# Combines Class Work, Group Work, and Individual Work

***Dalton Plan Permits Every Pupil to Budget His Own Time. Teacher Outlines Assignments for 20-day Periods, Aids Organization of Study, Holds Conferences, Tests Results. Pupils Encouraged to Work Together***

By HELEN PARKHURST
*Principal Children's University School, New York City*

UNDER the Dalton plan, the pupil is given his work in the shape of a series of related jobs. The work of any job is very carefully outlined, sometimes by the teachers, often by the pupils, depending upon the kind of school. Each job corresponds to what can easily be done within a school month of 20 days. The number of jobs outlined for a school year depends upon the number of months comprising the academic year of the school using the plan. Thus, the number varies from eight to ten jobs.

The Dalton plan is applicable to any part of the school above, and beginning with the fourth grade. The fourth grade is taken as a starting point because pupils of that age and of that stage supposedly have the tool subjects sufficiently well in hand to enable them to work independently and easily.

### *Work Outlined 20 Days in Advance*

A single job may be the working out of a single idea, or each job may be made up of a collection of correlated assignments of work. In a school where, say, five subjects compose the curriculum, if the work is to be arranged in jobs, work should be outlined in advance to cover a 20-day period, and work sheets or procedure sheets (assignments) would be made out to show a pupil how to attack each subject. Individual copies of these work sheets (assignments) would be given to each pupil.

We speak of a job as comprising a certain number of units of work. A unit of work, in quantity, approximates, or corresponds to, what would usually be assigned for a daily recitation in a subject. Twenty units of work would be outlined for each subject taught. If a grade's curriculum had five subjects, then a job would comprise 20 × 5 units, or 100 units of work. A unit of work, from the pupil's point of view, is not a set amount to be done in a certain stated amount of time, nor does a unit of history, for instance, equal a unit of music or art. Pupils take as much time as they need, out of the entire amount at their disposal, to do any given 20 units of work of an assignment.

A morning in a Daltonized school is divided into two short periods and one very long period, viz, first, an organization period lasting from 15 to 30 minutes; second, a laboratory period from 2 to 3 hours and, preferably at the close of the morning, a conference period lasting 30 or 40 minutes.

### *Laboratory Work to Occupy Morning Hours*

The Dalton plan does not prescribe any set time for laboratory work, but it is suggested that, whenever possible, three-fourths of the morning time be made available for this purpose.

Let us say that a school sets aside 3 hours as laboratory time; then in a school month of 20 days, a pupil's laboratory time would approximate 20 × 3 hours or 60 hours. Each pupil, therefore, would have at his disposal 60 hours in which to do his 100 units of work. This 60 hours is budgeted by each pupil to serve his individual needs, and definite instruction is given as to how to budget time. If a pupil does the entire job (100 units) in less than 60 hours, he immediately proceeds with the next job. There is no waiting for slower pupils, nor are slow pupils rushed along at an accelerated rate or carried by the momentum of the class, producing inaccurate, slovenly work; nor would a slow pupil have to finish in 20 days. He may have more time whenever necessary; nor is a 20-day period supposed to coincide with a series of school or calendar months. A pupil counts "one" as his first work day, and so marks his work graph. "Two" is his second day, etc. Absent days are not counted. We go from 1 to 20 because work is set on a 20-day basis.

### *Job Cards Measure Progress of Work*

Laboratories, or subject workshops, are established for each subject, but in the separate laboratories pupils spend only the time necesssary to accomplish an assignment of work. Each pupil has a job card to measure his progress; he can see at a glance just where he stands on the whole job. A special pupil time chart is provided for older pupils so that they can record how they, as individuals, are using their time.

The pupils remain in grades and have their grade jobs; they go from laboratory to laboratory according to their interests and needs, and without asking permission, during the laboratory time; and they are free to choose and plan within the limits of the job. These jobs depend upon a child's capacity and rank. There is but one restriction to a pupil's freedom. If he does the 20 units of history required by his job, he can not go on in the subject, history, until he has completed his 20 units of geography, his 20 units of mathematics, etc., or, in other words, until all of "Job I" is completed. Then he may proceed with Job II, unhandicapped. This is very important, because an uninstructed pupil can not wisely organize and budget time. All of a single grade assemble with an "organization advisor," the same one, at the same time each morning. Pupils report their progress, make their individual time-tables for the day, and study the problem of how to reconcile any shortages in their unit scores. A pupil carrying five subjects has a "work norm" of five units, and should do five units each day. If a pupil fails to get this norm—perhaps he is doing his most difficult subjects—he is taught to swing into an easier subject next day so that he can do more. This helps him to get ahead or to break even and thus reconcile any shortage.

### *Grouping Encourages Discussion and Debate*

During laboratory time, pupils are encouraged to work together in grade groups according to the demand or through the medium of the assignment. If, for instance, a fourth-grade pupil enters a laboratory, he must work in that part of the room set aside for his grade, unless he was confronted with a special piece of work which can only be done by working alone. This grouping encourages discussion and debate, and gives a line of direction to conversation which might be promiscuous if the pupils had nothing in common. Before pupils leave a laboratory, they record their progress on their individual job graphs, and also on the instructor's graph, which is to be considered a class progress graph. The class progress graph shows an instructor where each individual of a class is in his work at any time.

### *Daily Conferences with Teacher*

The last half hour of the morning (40 minutes in some schools) is designated as conference time. The pupils who met at organization time now meet again for a conference—that is, they confer together over a specified part of the job, according to a posted conference schedule. Monday a grade may meet in geography, Tuesday in history, Wednesday in English, Thursday in science, and Friday in mathe-

Portions of an address before conference on individualized instruction, held by United States Bureau of Education and University of Pennsylvania cooperating, Philadelphia, March 27, 1925.

matics. During this time, debates, reviews, reports, etc., are given—anything which relates to the subjects for which the pupils are called in conference.

These conferences, coming once a week as they do, are not considered as a time for presenting new material. They are too infrequent for that purpose. Presentations of new material are scheduled on a "presentation bulletin board," and are at the call of the teachers, who schedule special calls or classes in accordance with the progress and need of individuals or groups. These appointments are classified and posted under grade headings. They are posted in the morning before the pupils arrive, so that upon arrival each pupil makes a daily memorandum of the engagements he is to have with his instructors. He takes these interruptions into account at organization time when planning his time.

In this way a teacher may call together several individuals, or an entire class, as often as necessary, as determined by the need of a subject. Here the only restriction is that there shall be no more than two special presentation conferences scheduled for any single grade in the course of a morning and that the first notice posted shall have preference. This may make it necessary for a second instructor to change the hour of his appointment.

Whenever an entire class is called, a sign is put on the laboratory door saying, "This laboratory is closed." All others than the class called are expected to stay out. This is to avoid interruptions. When small groups are called, the laboratory remains open to capacity. To avoid crowding, a capacity limit is set for each laboratory; i. e., a number indicating capacity is posted on the door. If an instructor desires to take some grade on an excursion to a museum or industrial plant, lasting an entire morning, a notice is posted for that grade, telling the time, the meeting place, etc. The instructor puts up the closed-laboratory sign and is off with the pupils.

The plan combines class work, spontaneous group work, and individual work, but above all it is designed to give pupils a training in handling a job, to teach a pupil to manage time and to plan his work, and at each step of the way take himself and his needs into account in order to assure individual development at each point.

## Bureau of Education's Latest Publications

The following publications have been issued recently by the Bureau of Education of the Department of the Interior. Orders for them should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C., accompanied by the price indicated:

Contribution of home economics to citizenship training. Proceedings of the National conference of city supervisors of home economics, Washington, April 21, 1924. Prepared by Emeline S. Whitcomb. (Bulletin, 1925, no. 3.) 10 cents.

Improvement of rural schools by standardization. Edith A. Lathrop. (Rural school leaflet, no. 32.) 10 cents.

Gives the essential detailes of standardization in 34 states, the content of the score cards for 30 states, and some achievements of standardization.

Land-grant college education, 1910 to 1920. Pt. II. The liberal arts and sciences including miscellaneous subjects and activities. Ed. by Walton C. John. (Bulletin, 1924, no. 37.) 25 cents.

Contents: 1. The liberal arts in relation to the land-grant colleges, by George F. Zook.—2. The sciences in relation to undergraduate land-grant college curricula, by Charles E. Marshall.—3. The sciences in relation to graduate work in agriculture, by A. R. Mann.—4. The sciences in relation to engineering education, by R. G. Dukes.—5. The arts and sciences in relation to home economics education, by Emeline S. Whitcomb.—6. Agricultural economics and allied subjects, by H. C. Taylor.—7. Rural sociology, by C. J. Galpin.—8. Industrial journalism, by N. A. Crawford.—9. The War Department and military training in the land-grant colleges, by C. R. Mann and Col. F. J. Morrow.—10. Military training in the land-grant colleges, by W. B. Bizzell.—11. Physical education and hygiene, by T. E. Jones.—12. Education in the negro land-grant colleges, by R. S. Wilkinson.—13. University extension in the land-grant colleges, by L. E. Reber.

Legal provisions for rural high schools. William R. Hood. (Bulletin, 1924, no. 40) 10 cents.

An opportunity for the promotion of better citizenship. 5 cents.

Pre-school child. A short reading course for pre-school study circles. (Reading course, no. 29.)

Problems in physical education. Report of a conference of State directors of physical education. J. F. Rogers. (Physical education series, no. 5) 5 cents.

Publications of the United States Bureau of Education pertaining to rural education. Florence E. Reynolds. (Rural school leaflet, no. 36) 5 cents.

Statistics of city school systems, 1921–22. Prepared under direction of Frank M. Phillips. (Bulletin, 1924, no. 34) 25 cents.

Time allotments in the elementary-school subjects. Fred C. Ayer. (City school leaflet, no. 19) 5 cents.

Contents.—1. Time distribution of subjects and grades.—2. Changing tendencies in time allotments.—3. Special adaptations in time allotments.—4. Illustrative time allotments.

—*Edith A. Wright.*

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## A System for Studying Social Backgrounds

### *Private Organizations Cooperate With Philadelphia School Authorities to Learn Reasons for Deficiencies*

EDUCATIONAL and vocational guidance has been given to more than 10,000 Philadelphia children in the past six years by counselors who work in some of the public and parochial schools and in the junior employment service of the board of public education. Some of these counselors are employed by the board, but most of them are supplied by the White–Williams Foundation, an organization which cooperates with the school authorities in studying the home backgrounds and personal characteristics of children who are deficient in lessons, behavior, health, or attendance. Other organizations, such as the Commonwealth Fund and the Philadelphia Quarterly Meeting, help to pay the salaries of these counselors. A counselor for Roman Catholic parochial schools is supplied through cooperation with a church committee.

Nine counselors investigate the problems of children who are seeking work through the junior employment service maintained by the board of public education as part of the bureau of compulsory education.

The foundation has provided a counselor in each of 10 public schools of various types selected as laboratories, including elementary schools in different sorts of neighborhoods, a special school, a trade school, a junior high school, a girls' high school, and a boys' high school. These counselors assist the teachers in finding out the causes of children's failure in lessons, behavior, or attendance, and in remedying difficulties caused by home conditions, physical defects, etc. Children of ability who are leaving school to go to work because money is urgently needed at home are granted scholarships averaging $5 a week from a fund especially for this purpose. The amount paid is usually less than the child would earn, so that a sacrifice by the family and the child is still necessary to keep the child in school. This makes it impossible for anyone to consider the payments as charity. The Red Cross helps to pay for some of these scholarships.

To encourage teachers to study the social backgrounds of their pupils, the foundation grants scholarships for a special course in social work in the schools given at the Pennsylvania School for Social Service. College credit is given for the work by the University of Pennsylvania and by Temple University. This course requires home visits and other practical work with pupils as well as attendance at lectures.

· SCHOOL LIFE ·

ISSUED MONTHLY, EXCEPT JULY AND AUGUST
*By* THE DEPARTMENT OF THE INTERIOR, BUREAU OF EDUCATION

*Editor* - - - - - - JAMES C. BOYKIN

*Terms:* Subscription, 50 cents per year, in advance; to foreign countries in which the mailing frank of the United States is not recognized, 75 cents. *Remittance* should be made to the SUPERINTENDENT OF DOCUMENTS, Government Printing Office, Washington, D. C.

*MAY, 1925*

## *Marked Improvement in Teacher-training*

STANDARDS of teacher-preparing institutions are rapidly improving. Educational progress is in the air. Schools of every class show the effects of it. Better teachers are essential to that progress; and since the normal schools were clearly below the level of efficiency which modern ideas demand, the improvement in the normal schools within the past 20 years has been one of the outstanding facts in American education.

It is no reflection upon them to say that they must still go far before they reach the ideal condition. The findings of recent surveys bear out common knowledge of this. This reference is especially to the State surveys in Massachusetts, Pennsylvania, and Louisiana.

Normal training is essentially work of collegiate grade, whether it be given in teachers' colleges or in normal schools, and it is reasonable to expect that those institutions will bear comparison with State colleges of liberal arts of the same grade in the same localities. That the teacher-preparing institutions have not yet reached that level in the States named is the plain conclusion from the survey reports. This can not be said with equal confidence of the country as a whole, but other studies, including those described in the Year Book for 1922 of the American Association of Teachers Colleges, indicate that in many States of the Union the same general statement applies.

Using the term "normal" to apply to the four-year as well as the two-year institutions, these studies tend to show (1) that the normal students are in general of a lower economic level; (2) that the normal teachers as a class are relatively inferior in scholarship, and that their salaries are less; (3) that the normal schools are relatively deficient in physical equipment, and (4), most important of all in that it is responsible for the rest, the funds appropriated for normal schools are measurably less than those available to the State liberal arts and the agricultural colleges of corresponding States.

Two elements are sufficient to explain the difference in the economic status of normal school students, namely, the cost of attendance in normal schools is lower, perhaps not more than 60 per cent as much as in the State university in the same State; and after two years of study one is able immediately to fill a teaching position with a salary sufficient for modest needs.

General unanimity appears in relation to the other elements in which improvement is demanded in teacher-training institutions. Fewer doctors' and masters' degrees appear in the faculty lists of even the teachers' colleges than in liberal arts colleges, and it is well known that the conditions of work in the former are much less satisfactory. In this the possibilities of change for the better are distinctly favorable, and the efforts of the accrediting and standardizing organizations are bearing abundant fruit.

But after all the only power to place the work of teacher training upon the high plane which the well-being of the whole school system requires lies in the legislatures of the several States. They must supply the funds. Money and more money is needed. With enough of it there can be no doubt of the quality of the teachers that will be produced, for the weaknesses of existing agencies are as an open book. They have no fault which can not be rectified by reasonable appropriations over a reasonable time.

## *Geographical Uniformity in Teachers' Salaries*

ADVOCATES of uniform salaries should find the realization of their ideals, save in one important particular, in England and Wales. There the principles of uniformity have recently been impressively reaffirmed. Every teacher in the land receives the same salary as every other teacher who does the same work whether he lives in a rural hamlet or a metropolitan district, making due allowance for differences in cost of living. And everyone knows to a penny what he will receive during the next six years, at least, barring only the contingency of promotion from a lower to a higher place or the like. Competition between districts for the services of desirable teachers and bickering between employer and employed are at an end. Excepting only the discrimination against women, by which they will receive only about four-fifths as much as men and their annual increments of salary will be three-fourths as great, complete unformity seems to have been achieved. This extraordinary condition had its beginning in 1921 with the adoption of the epoch-making "Burnham scales."

After the World War the conditions of teaching in England were little less than deplorable. Such antagonism had arisen between the education authorities and the teachers that strikes occurred in many localities and discontent interferred seriously with the operation of the schools nearly everywhere. In the attempt to remedy this unfortunate state of affairs the president of the national board of education, Mr. H. A. L. Fisher, constituted a central organization, called the "joint standing committee," composed of representatives of the local education authorities and of the teachers' organizations.

In a short time this committee produced a "provisional minimum scale of salaries for teachers in public elementary schools." Excellent results followed, for within a few months no teacher in England was receiving a salary less than the new scale provided for his position. A national basis for treating the salary problem thus appeared to be feasible, and the committee proceeded to work along that line. Before the end of 1920 four graduated scales had been formulated, applicable, respectively, to the conditions in the several areas from the rural to the metropolitan. Similar action was later taken in behalf of secondary-school teachers and teachers in technical and continuation schools.

It was provided that the scale to be allocated to any area should be fixed by agreement between the proper local education authority and the teachers concerned, but if such an agreement could not be reached the allocation should be determined by the joint standing committee with the approval of the president of the board of education.

In their operation the new scales carried important increase in compensation to nearly every teacher, but since 60 per cent of the salaries was borne by the national exchequer, the local authorities had little reason for complaint. The scales were effective April, 1 1921, and were to continue to March 31, 1925.

In the industrial crisis and the consequent period of national retrenchment which were beginning even at the time of the adoption of the scales, the experiment was seriously threatened, particularly by the famous "Geddes report," which demanded drastic reductions in all salary schedules. The teachers escaped by accepting a horizontal cut of 5 per cent, which was distinctly less than the Geddes committee demanded.

The education authorities were never satisfied that this cut was sufficient, and when the salaries to be paid after March 31, 1925, were discussed, the authorities insisted upon further reductions. The teachers' organizations in turn demanded return to the original scales. An impasse arose, and agreement was finally reached to refer the entire matter to the arbitration of Right

Hon. Viscount Burnham whose chairmanship of the joint standing committee had met universal approbation.

Lord Burnham's award was made public a few days before the expiration of the former scales, and the new scales are now in force and will so continue for six years. After that time they will continue from year to year, unless denounced with a year's notice either by the teachers or by the education authorities.

Although many differences of detail appear, the award follows substantially the former standard scales, with the 5 per cent reduction. Although it is provided that no teacher's salary shall be reduced by the operation of the new scales, important saving in the total cost of instruction is obtained by lengthening the time required to reach the maximum salaries and by providing that annual increments shall begin after two years of actual service, the first year being considered a probationary year.

Full uniformity is, therefore, a fixed policy in England and Wales so far as geographical and administrative features go. There is much in the general plan to commend it to Americans, but the English scale with relatively lower wages for women will find little response in a land in which women occupy a large proportion of the posts of responsibility in education.

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## The Modern Foreign Language Study

The Bureau of Education is cooperating with the Modern Foreign Language Study in securing statistics from the secondary schools throughout the country regarding enrollment in French, German, Italian, and Spanish, and the training and experience of foreign-language teachers in the schools. This investigation, which is carried on under the auspices of the American Council on Education, has its head office at 561 West One hundred and sixteenth Street, New York City, and is under the guidance of a committee on direction and control, consisting of 20 college and school teachers of the foreign languages and school administrators. The Study will include in its survey, not merely the secondary schools, but also the corresponding levels of modern language instruction in the colleges, where many thousands of students are engaged in the first two years of foreign-language study. It will also include a systematic investigation of the opportunities in this country for the training of teachers of foreign languages for the secondary schools. The study is planned to extend over three years and to have far-reaching influence.

# Secondary Schools in the Program of International Understanding

"ALIVE newspaper is better than a stale history," Augustus O. Thomas, commissioner of education of Maine and president of the World Federation of Education Associations, said in an address before the secondary school principals recently. "The program of studies and the textbooks for high schools should indicate in definite manner how current happenings may increase a student's interest and understanding of history, geography, civics, art, music, and literature," he added. The speech in brief follows:

"Students should be taught how to study world news. They should have access to daily papers and to magazines dealing with world occurrences. They should be taught how to get the impact of world events and to interpret them—to think in world terms.

"We should teach a general world history, not missing the small nations, the manners and customs of the people, their institutions of government, and their contributions to the progress of mankind. This will include the development of art, music, literature, philosophy, invention, and discovery. Such study need not be exhaustive. No education in school can be.

"I am not opposed to the teaching of war if the emphasis is properly placed, nor would I fail to attribute to our soldiers and sailors the high quality of patriotism and bravery. War is a hang-over from old barbaric tendencies. As mankind mounts upward on his journey from the primitive to the civilized, he will discard this old weapon of destruction and accept the new weapon of law.

"A normal man is one who can solve successfully the problems which arise within him and about him. A normal education is that which will enable the individual to solve the problem he meets in life to his own satisfaction and to the security of the race. We no longer classify men by their post-office addresses but by their reach and grasp of world-wide situations.

"In casting about us in human affairs, we find many shortcomings as well as many virtues. It is the place of education to scrutinize society, business, and politics in order to ascertain the elements they lack. In order to increase human happiness, we should not only teach these elements but should make war upon undesirable qualities.

"International justice can not be taught incidentally, collaterally, nor correlatedly with the effectiveness we desire. There should be direct and purposeful teaching. This may be done through (1) the teaching of history, (2) teaching of literature, (3) teaching of world civics and international contacts, (4) the observance of world good-will day, (5) essays on the subject of world relations, and (6) direct teaching of patriotism. The rising generation should be taught that the golden rule is applicable among nations as among individuals."

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## Reorganization of Michigan Interscholastic Athletics

Responsibility for interscholastic athletic activities in Michigan was placed, by legislative action in 1923, upon the State superintendent of public instruction. This law made necessary the reorganization of the State athletic activities. The Michigan high-school athletic association was formed by collaboration of the superintendent of public instruction with the Michigan interscholastic athletic association and the Michigan schoolmasters' club; and a State director of interscholastic activities has been chosen. All Michigan high schools, or schools of equal grade, are eligible to membership in this association.

The association meets annually, and the vote of members is cast by the principal or superintendent, or a faculty representative authorized in writing by the principal or superintendent. The association elects a representative council composed of 10 members—6 from the public high schools, 2 teachers or directors of physical education, and 1 each from a junior and a parochial school. The State superintendent of public instruction and the director of interscholastic activities are members ex-officio. All officers of the council are elective except the director of interscholastic activities, who is appointed by the State superintendent with the approval of the council. The salary and expenses of this officer, and necessary traveling expenses of the council, within the State, are paid by the State.

The council has general control of all interscholastic activities, including discipline, with right of appeal to the director. Only actual bona fide high school students in good standing and possessing certain scholastic qualifications are allowed to compete in interscholastic contests.

# Sequence in Handwork for Kindergarten and Primary Classes

***Abnormal Accuracy not to be Expected in Work of Young Children. Progression and Continuity Should be Arranged to Correspond with Child's Development. Series of Reading and Language Lessons for Third Grade***

By FLORENCE C. FOX
*Assistant Specialist in City Schools, Bureau of Education*

COLONEL PARKER was wont to warn his classes in educational psychology against the "demon of accuracy" which possesses the teacher in her classes in handwork. The art teacher in a certain school gave an exhibit of her pupils' work, and one of the children brought her mother to see the picture of a vase she had painted in water colors. At first the composition could not be found, but was finally identified by the child's name written on the margin. She refused to acknowledge it, however, protesting that it was not her picture. The teacher had "touched it up" to such an extent that it had lost all resemblance to the original.

Crude production must be accepted in this work if we wish the child to develop naturally through self-expression. Not a line can be changed nor a surface altered by the teacher's hand if we would preserve the child's integrity. The finished edifices in small building blocks which we see offered as an expression of kindergarten or first-grade free play give an erroneous impression. It is doubtful if little children are ever able to build these intricate structures without much suggestion and manipulation of materials by the teacher.

To offer the work of adult training classes as models for children's guidance is misleading.

### *Childish Handiwork Necessarily Crude*

Any teacher who has attempted to follow these suggestions which are embodied in the finished work of the training teacher finds the child quite incapable of carrying out these projects, and his work is so crude in comparison that discouragement for teacher and pupil inevitably follow. Rather give the child an idea and let him work it through in his own untrammeled way with just enough guidance to help him over his difficulties or to assist him in solving perplexing problems. Or, better still, place a unit of work before him and his group and let the ideas emanate from each member of the class.

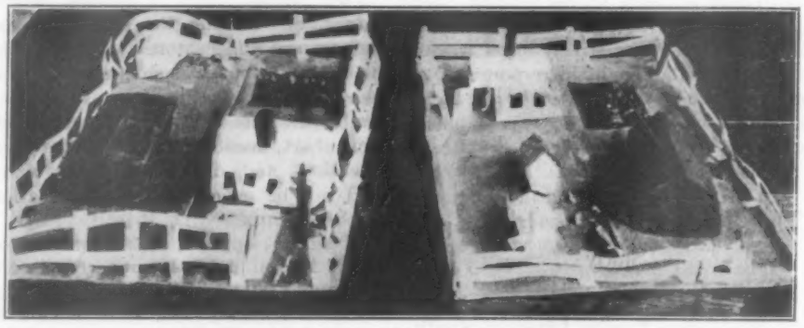
Provision must be made in this work for the gradual development of skill and accuracy. Little children do not acquire proficiency overnight, nor make with little hands a perfect thing throughout a day, as "Minerva sprang full-grown from the head of Jove." A long line of successes and failures mark the child's approach to successful accomplishment with ease and facility. When a kindergarten child produces a perfect product we may know it was made with much travail of spirit and with many heartaches, discouragement, and despair.

On the other hand, growth must be assured. Pupils in third grade are sometimes found using the same material in the same way they are used in the kindergarten or first grade. Perhaps the chief cause for dissatisfaction with the closer union between kindergarten and primary lies in the failure of supervisors to provide for a definite progression from one year to another. One of the great values, however, of this unification of early education is the opportunity which it affords for an extended plan of work from the fifth year to the ninth of the child's life, covering a logical sequence of materials and of difficulties in achievement.

A sequence in building materials, for instance, might include the use of large wooden blocks in the kindergarten and first grade for simple, easily constructed models; the smaller wooden and the terra-cotta blocks in first and second for more elaborate designs and symmetrical proportions; and, finally, the mechano parts and the erector in second and third for the construction of machinery and a large variety of miscellaneous models. A sequence of measurement in paper work is most important in this activity; generally speaking, measurements by folding for the kindergarten and first grade; definite measurements with the ruler, using the larger units in whole numbers for the first and second grades; and the use of smaller units in fractions for the second and third grades. We must depend upon the supervisor to arrange for this progression and continuity. She surveys the field and notes the steps to be taken from year to year in this work. She is able to plan for the child's growth and development through this period as the grade teacher can not hope to do.

### *Real Expression of a Child's Ideas*

This paper deals especially with the project of the sand table farm as it has been worked out in specific instances by pupils in the kindergarten, in the first and second, and in the third grade. A sequence in design, in materials, in measurement, in difficulty of execution, and in development of accuracy is apparent from even a superficial comparison of the three illustrations. The first picture is a delightful representation of the simple and natural construction of



Building a sand-table farm in kindergarten; paper folding projects

paper models which we might expect to find in the kindergarten. It bears the mark of sincerity, unmistakedly. It is the real expression of a child's idea.

The second picture represents a first and second grade's production of the same project, using a combination of three materials, paper, wooden splints, and clay. Several periods of the day's program are represented here; number lessons in approximately accurate measurements of the farm, the fences, and the buildings; nature study lessons on the growth of the plants in the fields; art lessons in modeling the clay animals which are in the meadow; and the painting with water colors of the buildings and fences.

### *Coordination with Language and Number*

The third picture is a representation of the same project in the third grade. The use of number as a mode of judgment and a unit of measurement is given in detail in the reading and language lessons which were formulated by the third grade during the building process. They give also a

detailed account of the procedure from day to day in this project and of the use of materials in its construction.

Other correlations not mentioned in this account were an important part of this study in each grade. Lessons in art and music, history, literature, geography, and civics accompanied the daily work in construction. These, too, were in sequence, from the first lessons in kindergarten, adapted to the 5-year-old, through first and second grades to the more advanced curricula for the third, expanding more and more from year to year and keeping pace with the child's physical and mental progress.

The following reading and language lessons on the sand table farm were formulated by third grade pupils from day to day as a permanent record of the work in construction and measurement. They were mimeographed and bound into books with like material growing out of their various activities.

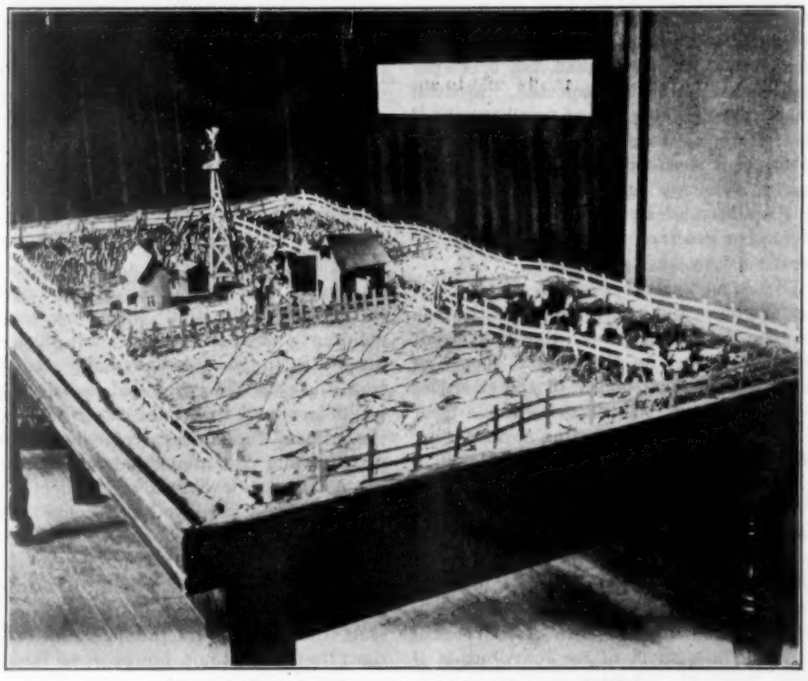
## *OUR FARM*

We planned to make a farm on our sand table. We are going to measure our farm in acres.

*How we measured it.*—We measured a rod with our rod measure, in our schoolroom. We are going to measure an acre in the park. An acre is 8 rods by 20 rods. We cut picture acres out of checked paper. They were 8 checks by 20 checks. Each picture acre had 160 little squares on its surface. We called each check 1 rod and our acre measured 8 rods by 20 rods, and its surface was 160 square rods.

*How we measured an acre with our rulers.*—We called one-fourth inch one rod. If an acre of land measures 8 rods by 20 rods then our picture acre will measure 2 inches by 5 inches. Then we drew acres on paper. Our sheets of paper measured 8 inches by 10 inches. We found we could draw exactly 8 acres on our sheet of paper. Now we laid our sheets of paper on the sand table. It took 11 papers to cover the sand table.

Sand-table farm, third grade; clay modeling and applied number project



Sand-table farm, first and second grades; cardboard sloyd project

*How we counted the acres.*—We counted 11 acres along the east end of our farm. This made one row of 11 acres. We counted these rows and found there were 8 rows; 8 by 11 acres are 88 acres. There are 88 acres in our farm.

*How we divided our farm into fields.*—We decided what kind of fields we should have on our farm and how many acres in each. First we took one row of acres along the south side for the road. In the middle of the south side, on the road, we took 8 acres for our farmyard. In the northwest corner is the wheat field of 12 acres. South of the wheat field is the oats field of 9 acres, and south of the oats field is the hayfield of 9 acres. In the northeast corner is the wood lot of 8 acres. West of the wood lot is the potato field of 4 acres, and west of the potato field is the orchard of 8 acres. Between the orchard and the farmyard is the garden of 4 acres. South of the wood lot and potato field is the cornfield of 12 acres. South of the cornfield is the pasture of 6 acres.

*How we made a map of our farm.*—We took a large sheet of checked paper. We called each check a square rod. Then we drew acres on our map. Each acre was 8 checks by 20 checks. There were 88 acres on our map. We marked these directions on our map. The upper edge is north, the lower edge is south, the right is east, and the left is west. We drew lines to mark the fields. We colored each field with our crayons.

*How we fenced our farm.*—We stretched cords across the farm to mark the dividing lines between the fields. Then we set our fences along these lines. We made wire fences. We set the posts 4 inches apart. They stood 1½ inches above the ground and 4½ inches below the ground. So our posts were 6 inches long. They were round wooden rods one-fourth of an inch in diameter. Wallace brought the rods from his father's shop. We stretched 3 wires from post to post. They were wound once around each post, and were one-fourth of an inch apart. We made a picket fence along the road in front of

the farmyard. The pickets were made of round wood rods about half as large as the posts. They were 1 inch long and were woven together with wire.

*How we made our gates and bars.*—We had two gates in front of the farmyard opening into the road. One large gate opened onto the driveway, and a small gate in front of the house. The gates were made of wooden splints one-fourth inch wide. They were wired together. The large gate was 2 inches by 1 inch and the small gate was 1 inch by 1 inch. There were bars opening into each field. Through these bars the cattle can go into the pasture, the cultivator can be driven into the cornfield, the hay wagon can be driven into the hayfield, and the reaper and harvester into the wheat field. We set posts for the bars at one corner of each field. They were 1¼ inches apart. We set smaller posts by the large ones and wired them together near the top and in the middle. Then we slipped two bars in between the posts. The bars were made of wooden splints one-fourth of an inch wide and 2 inches long.

*How we made the house and barn.*—We drew a rectangle 2 inches by 1½ inches on a piece of board. We cut a sheet of clay the size of this rectangle and laid it on the board for the floor of our house. Then we made bricks out of clay that were about one-fourth inch square and one-half inch long. We set one row of bricks around the edge of our floor and then put in our door and window frames. The frames were made of wooden splints one-fourth inch wide. The windows measured one-fourth inch by one-half inch and the doors one-half inch by three-fourths inch. Our barn was made like the house. It was 2½ inches by 2 inches. There was a large double door in one side. It was so large that a load of hay could be driven onto the floor of the barn. The roofs were made of sheets of clay. We built up the ends of the house and barn to form the gables. Then we laid wooden splints across the top of the house and barn to support the roofs. We bent the sheets of clay through the middle to form the peaks of the roofs. Then we laid them on the tops of the house and barn. We made a little clay porch in front of the house, with two wooden pillars to support its roof.

A library of more than 11,000 volumes is a recent gift from the late Dr. Phil Broome Brooks, of Washington, D. C., to Hampton Institute Library. The collection is strong in English, music, folklore, and contains many valuable sets of reference books, including a set of the Yale Chronicles of America. It also contains a large number of books on the Negro, of which more than 200 are by Negro authors.

# English Excel Americans in Health Work

## *Nearly Half of All Pupils Undergo Medical Inspection. Children Found Defective Receive Medical Treatment.*

By J. F. ROGERS

*Chief Division of School Hygiene, Bureau of Education*

OTHER countries probably have not attained the quality of health work in schools which has been achieved in a very few American cities, but some countries are doing vastly better work in the aggregate than is accomplished here. This is notably true of England, where for 17 years such work has been conducted on a National scale and as part and parcel of the school organization. Notwithstanding postwar conditions, financial restrictions on school-health activities have been kept at a minimum, for the leaders in English life are coming to see with Sir George Newman that "in the interest of economy the State can not afford to neglect such supervision."

In 1919 the Board of Education made the requirement that "it must be satisfied that provision has been made for the medical inspection of all children admitted to school" and of all children between 8 and 9 and between 12 and 13 years of age. In 1922, out of 5,180,589 children in average attendance at the elementary schools, no less than 2,386,750, or 46 per cent, were medically inspected. Medical inspection is, however, of small benefit if there are no results from its findings. Through the efforts of school nurses and many voluntary agencies 77.7 per cent of the children of London who were found defective received treatment during the year—a very high proportion.

While medical inspection is, as it should be, the basis and beginning of health work in the English schools, they have not stopped here. As the annual report of the chief medical officer of the board of education says, "It must be made clear that in addition to detecting and treating disease, school hygiene comprises something larger and more universal. Medical treatment is not its goal. Such treatment may be necessary for a million children at any given moment, but the other five million require something else, and even for the million ailing children this is not sufficient. In short, school hygiene falls short of its contribution if food, fresh air, physical exercise, and a healthy school environment are not available for every child. These four elements in its upbringing call for careful, thorough, and continued supervision if we would train it to live well, for itself and the nation. The malnourished child, the delicate and debilitated child, the dull or backward child, as well as the normal individual, needs proper provision in these respects, and unless the provision be made we must neither expect nor hope to rear a healthy race. They are simple but essential conditions, and their provision should be dependent not upon the social status, wage, or intelligence of the parent but upon the condition of the child, though the form and occasion of the provision made must inevitably be dependent upon the position, resources, and responsibility both of the parent and the community."

### *Handle Defective Children as Individuals*

Another paragraph from one of Sir George Newman's always inspiring reports is:

"No one, I think, can study the workings of this new piece of national organization without being impressed with its far-reaching effect. There is a direct physical effect. Hundreds of thousands of children have found relief, and their feet are to-day set on the high road of recovery to health and strength. They ought, with reasonable fortune, to grow up strong men and women, the healthy parents of healthy offspring. There is also an indirect effect, not less significant. For school medical work has taught us that each defective or ailing child must be handled as an individual. A hundred children may together attend the same inspection and the same school clinic, but each of them must be treated individually. The mass of a hundred can not be treated as a mass; each must be dealt with as possessing characteristics and conditions of its own. In short, the school medical service has given a new understanding of the child as an individual, an understanding which can not fail, in the future, to affect the whole scheme of its education. We have come to see not only that there are many children unable on account of physical disability to receive reasonable benefit from the education provided, or from the usual forms of that education, but that the primary fundamental of education is physical and not intellectual, and that we can not as a rule obtain an intellectually educated child until we have secured that its habits of body, its senses, its natural functions, and its brain centers are healthy, trained, and disciplined. Reading, writing, and arithmetic are, it is true, the tools of its intellectual education; they should not, however, be taught in such a way, or under such conditions as to injure the child in the process. It is the child, and not his acquired accomplishments, which is of ultimate value to the nation. The living, unmaimed, normal, healthy child is the product we seek."

# Adaptation of Individual Instruction to Small High Schools

*Modified Dalton Plan Used in Bronxville, N. Y. Subject Matter Divided into "Assignments." New Assignments Given When Final Test in Old is Completed. Class Conferences and Individual Conferences with Teacher*

By A. J. STODDARD
*Superintendent of Schools, Bronxville, N. Y.*

ACCORDING to the individual method as it is used in Bronxville, subject matter is divided into "assignments." For instance, the subject of factoring in algebra might constitute an assignment. Different parts of the assignment are given one or more unit values. A unit is the value assigned for doing a part of an assignment that requires approximately 100 minutes of study for completion by the normal pupil. As the student progresses through the assignment he is given "practice tests" which are diagnostic in nature. These tests are corrected by the student according to answer sheets that are so keyed as to indicate what he is to study if he has not fully completed the part of the assignment covered by the test. He may take several different forms of practice tests on a particular part of the assignment before he completes it, although usually he takes a succeeding test over only the part that he missed on the preceding test. If the student would be tempted to cheat in taking one of these practice tests, he soon finds that it would make no difference because the practice test is given as a teaching device anyhow.

### *Progress Tested During Conferences*

During the time that the student is progressing through the assignment he may have one or more personal conferences with the teacher. This device of a personal conference has proved one of the most valuable in use with the method. The student seeks the conference and the teacher talks over with him his problems, difficulties, and progress. Also, the personal conference offers excellent opportunity to test the student on what he has accomplished. It affords the teacher an opportunity to give the student an appreciation for the subject that is not possible in the broadcasting class method. Religious leaders testify to the fact that the most effective and efficient work is done through personal conferences with individuals.

After the teacher and student are convinced that the student has qualified himself for the final test over the assignment, it is given to him. Just as with the practice tests, the whole or parts of the final test may have to be taken several times. Whenever the final test is passed completely, the student is given the next assignment in the subject. Under the Dalton plan a new assignment is not given a student in one subject until he has completed his monthly assignments in all subjects. In Bronxville, one subject is not made to carry any other subject, and a student will progress in one subject as rapidly as he can if he does not slight his other subjects as far as proportion of time is concerned. If he does get behind schedule in a subject he is required to give it special time at the close of the day.

Class conferences are held several times per week in each subject. These conferences are quite different from the usual class recitation. All testing, other than review, is omitted because it has been done so much more efficiently through the method outlined above. The conference offers opportunity for special reports, special discussions, oral English, and group matters that are of especial interest to the whole group and in which the whole group can participate. Also, it is often economically employed for the purpose of anticipating processes that are to be involved in future assignments. It is during these conferences that purposes are initiated and projects carried on, giving rise to social values that might be lost during the more individual work on assignments.

### *Freedom of Movement Permitted to Students*

According to the plan in operation in Bronxville, the students pass from one laboratory (a room where a pupil studies) to another at will, the only exception to this being when a particular room is in use for a conference or is filled to capacity. A general study hall is provided to take care of students that can not be accommodated elsewhere at a particular time. A student may stay as long as he wishes in a particular laboratory with the exception that he must meet his class conference when they occur. That is, he may work all day on one subject if so inclined. Of course, the student is guided in all of these matters. Each morning, he plans his day during the first 15 minutes while in his home room with his home-room teacher. He plans his day on his "time card." This time card is open for inspection by anyone and passes through the hands of the principal and the home-room teacher twice each day, affording plenty of opportunity for guidance when needed. In no case is a student told absolutely what he must do unless he has gone far astray in his planning. Our students have shown surprising progress in their ability to plan efficiently their day's work. Whenever a student enters or leaves a laboratory, the teacher in charge of the laboratory records the time and places her initials on the card. As a student demonstrates that he can use his time efficiently and not waste it about the halls or elsewhere, he is relieved from showing his time card, but uses it for planning his daily program just the same. A large proportion of our students are granted this privilege, and practically it is eliminating discipline problems.

### *Discipline no Longer a Serious Problem*

In fact, the individual method has reduced discipline problems to a negligible part of what they once were. The pupils are too busy to make trouble. They will tell you they have no time to waste.

It will be noted that a student is required to complete one assignment before he goes on to another—not just "pass." This causes the progress of many of the students to seem to be quite a little slower than under the class method; but in reality it is just the opposite. Because all pupils are reciting together in a class does not signify by any means that all of them are up to that point. The fact that it is necessary for a student to master his subject matter as he goes along is of the greatest importance. It is this requirement that meets with the most objection from students and their parents.

### *More Time Required for Some Students*

Under the requirement of completion of work, a student may not always be ready for regents' or college board examinations when he or his parents think he should be. A student is certified as eligible for regents' or college board examinations in a particular subject when he has completed all of the assignments that make up that subject. While it may take many students a longer time to get ready for their particular examinations, the records they make ought, in time, to be much higher, and the mortality rate much lower. They are so accustomed to the evils of the class method that they do not see them as such, but rather look upon the attempt to correct these evils as constituting the only evil. Under the class

Address before conference on individualized instruction, held by United States Bureau of Education and University of Pennsylvania cooperating, Philadelphia, March 27, 1925.

method, the pupil sits with the same class day by day unless he fails at the end of the semester or the year. Only a small proportion of the pupils fail, and then only when conditions are very serious. It is difficult to get parents and pupils to realize that, even though they all stay together and appear to be together, they are widely apart—far more widely apart than if some of them were to be allowed to "pass" on to the next grade while others were to fail. Under the individual method a large number of the pupils seem to be "behind," and the parents of these pupils are constantly confronted with that fact. It is a source of discomfort to them, and the issue is a daily one instead of once or twice a year. Parents and pupils must be slowly and patiently shown that when a pupil is doing the work of which he is capable at the rate of which he is capable there is no cause for complaint on the part of either parent or pupil and that it is only under such conditions that real progress is made.

*Assignments Present a Difficult Problem*

The direct problem that has caused most of our work and study up to date has been that of the assignment. There is still a tendency for the assignments to be too complicated and to require as a minimum for all what should be the maximum for many. In other words, our assignment should require the minimum essentials for all with enriched and extended requirements for those that are capable of doing more. We are not interested in students completing their high-school courses in less than four years, but we are attempting to get each pupil to work more nearly to his capacity.

The biggest and most interesting problem that confronts those using the individual method is the proper correlation between group work and social work, or, more specifically, the relation of drill work to projects in education. Greater progress probably will be made in the solution of this problem in the elementary grades rather than in the high-school because of greater freedom with the curriculum in those grades. However, promising strides toward its solution are being made in several subjects of the high school. From an ideal standpoint, we all agree with Doctor Kilpatrick that "education is not acquiring specified subject matter fixed in advance; it is the continuous remaking of life by acquiring subject matter as it is needed for present behavior." The practical application of this ideal in the classroom probably will come slowly with the passing of the years.

*Increased Feeling of Personal Responsibility*

After 14 months of use of the individual method in Bronxville, certain results are becoming evident, according to the testimony of the teachers, students, and parents. All of our students are studying harder than ever before. It is too early to tell definitely whether or not they are learning more than before, although results so far are encouraging. There is no question that our students are growing in their ability to plan their own time efficiently and in their willingness and desire to assume responsibility for their work. Our students and our teachers, because of the assignments, know more definitely where they are going than they did before. Students work constantly with their subject purposes in mind; in fact, they can not do their work unless they keep their purposes in mind constantly. Teachers plan their work more carefully than ever before and know more about what each student is accomplishing. The teachers are beginning to assume, as the measure of the effectiveness of the work, the progress that each child makes; that is, how far he goes from where he is. The question is not so much as to where he is, but as to how far he gets from there.

*Not Enough Heretofore Required of Students*

It is surprising to learn that there is an immense, untapped source of motivation in the acquiring of facts, knowledge, and skills if the task is clearly, definitely, and concisely set before the child in terms that he is able to understand and within the reaches of his ability to master. A great deal of our necessity for motivation of our school work has come about from the procedure by which we expected the child to learn. We have been doing too much for the child and not expecting enough of him. It is surprising how quickly he demonstrates that he is eager and willing to accept responsibility if he is asked to assume it. From the kindergarten through college, boys and girls have been told instead of being allowed to do for themselves. If the individual method contributes to the development of men and women that are able to "stand on their own feet," it will have done much in a democracy where every individual must think for himself.

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Wireless apparatus in public schools for the use of parents and citizens' associations will be permitted by the New South Wales Minister for Education after successful experiments. It is expected that such a course will bring isolated country centers in touch with Sydney, and the country schools will thus become important social centers, especially in the evenings.

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All discriminations on account of sex in the employment of teachers for public educational institutions are forbidden by a recent act of the New Jersey Legislature.

## Czechoslovakia Leads in Training Local Historians

A recommendation that county committees for adult education arrange to train chroniclers of communities is embodied in a recent order of the Czechoslovak Ministry of Education. A second order outlines the course of study for the third class of the State Archivist School at Prague. The two provisions for local and State training of chroniclers are unique and taken together probably constitute the best organized attempt made by any nation to arrange for a proper recording of events. Czechoslovakia has set a precedent in providing, as a part of its scheme of adult education, for the serious training of chroniclers.

The first order publishes a detailed program of theoretical and practical courses; suggests as lecturers the local or some other professional archivist; and provides ways for financing the community courses. The expenses for material are to be met by the community; the personal expenses by the committee on adult education aided by a contribution from the ministry.

The course of study at the State Archivist School requires in both winter and summer semesters two hours a week in each of the subjects: Czech diplomatics, documents of Czech history, knowledge of State records, and administration of counties, cities, and patrimoniums. Church administration, and administration of the State and the States of the Empire are given 1 hour each. New age diplomatics is given three hours, making a total of 13 hours a week for each semester.—*Emanuel V. Lippert, Comenius Institut, Prague.*

♔

## Undergraduate Scholarships for Study Abroad

To increase understanding and friendship among nations through encouragement of gifted American college and university students to pursue a part of their education in the universities of other countries, a group of donors have entrusted to the American Council on Education the sum of $8,000 to provide for scholarships during the year 1925–26, each worth $1,000.

To be eligible to receive one of these scholarships a student, either man or woman, must be not less than eighteen years of age, must have been in residence for a period of two academic years at an American institution approved by the American Council on Education, and must expect to return to his American college to take his degree. There is no limitation concerning the countries or universities in which students may study nor as to the field of study.

# Adapting Schools to Individual Differences

"WIDESPREAD measurement of children's achievement and of their native intelligence has brought into bold relief the wide differences that exist among individuals," declared Carleton W. Washburne, superintendent of schools, Winnetka, Ill., in an address before the National Society for the Study of Education. "In the face of these differences," he added, "the absurdity of expecting all the children in a class to achieve the same degree of knowledge and skill from the same assignment, with the same time allotment, has become evident. Consequently, there has been a general movement toward adapting schools and school methods to the individual differences among children."

The interest in this movement and the necessity for some drastic modification in the traditional procedure is the justification for the twenty-fourth yearbook of this society. A number of experiments in individual instruction have been carried out in public schools in various parts of the country. These vary all the way from coaching laggards, or dividing children into ability groups, to much individual self-instruction.

The schools which have gone the farthest in individualizing their work have contributed the most to our statistical knowledge of individual instruction. Sufficient data justify the following conclusions:

1. Ability grouping is only a half-way step and does not fully solve the problem of adjusting schools to individual differences.

2. Individual work does save time, especially for the brighter children and those children who would normally be repeaters.

3. In Winnetka, individual work results in devoting an unusually large amount of time to group and creative activities.

4. The tendency of individual instruction does not seem to be so much toward getting children through school at an early age, as toward using the saved time for broader and deeper education.

5. Individual promotions appear definitely to decrease retardation and corresponding overageness.

6. Individual work increases efficiency in the tool subjects.

7. There is no evidence that individual work costs more than class work, the meager data available tending to indicate that it does not affect costs one way or the other.

8. Individual work does not appear to place an undue burden upon the teacher.

9. Individual work in the elementary schools does not result in inability to do class work efficiently in high school.

A safe general conclusion from the various descriptions of experiments, discussions, and statistical data would seem to be that it is practicable, without any serious compensating losses, to adapt public-school work to the individual differences that exist among children.

# Individualizing Instruction

"THE MOVEMENT for the greater individualization of instruction must and will spread," said Prof. William H. Kilpatrick, of Teachers College, Columbia University, before the National Society for the Study of Education. "But we shall always retain class work and continue, I believe, to give it first place. Certain subjects, as geography and history, are best learned in connection with group discussions, while joint enterprises give an opportunity for character training not otherwise to be got.

"The Dalton plan is attractive as one line of possible educational procedure, but as a total program, no. We can not accept it. The main objection to the Dalton plan, however, is, curiously enough, not so much what is new about it as what it holds in common with the more customary procedure. Both assume that education mainly and properly consists of learning certain prearranged subject matter for examination purposes. But I wish," said Doctor Kilpatrick, "to dissent emphatically from this position. Education must essentially be a continual and continuous making over of life to ever higher and richer levels. And learning is good and desirable exactly as on the one hand it makes over life at the time of learning and on the other gives simultaneously promise for continuing the process.

"The Winnetka plan is more striking. It agrees with the Dalton plan in providing individualized instruction, but differs in giving about half the time to group work as a necessary part of a properly rounded school program. Winnetka surpasses Dalton in trying to put the individual work more fully upon a self-directive and self-testing basis. But the Winnetka plan is open," according to Doctor Kilpatrick, "to two serious objections. It carries its mechanized work too far, including some subject matter that can not properly be mechanized. And it unduly separates the individual learning from its place of application. To remove fact and skills from their natural setting situation is to lessen their felt meaning and so to lessen the probability that they will be applied when needed. Moreover such learning tends to break life into separate compartments, a practice almost sure to be morally hurtful.

"Let Winnetka give first place to its admirable group work, and fit to this its individualized instruction so that each child may drill himself as the need shall come. With this program Winnetka can face the world."

## Single Responsible Board Advocated for City Schools

Only one board should be responsible for the financial control of the schools, and that is the school board, recently declared W. S. Deffenbaugh, of the United States Bureau of Education. He said further:

"The courts have repeatedly decided that education is a State and not a municipal function. All authorities on school administration advocate a board of education independent of municipal control. Committees that have made school surveys in cities where the estimates of the boards of education may be revised by city officials have recommended that the boards of education be made fiscally independent. It has been found that fiscally independent boards of education are not extravagant, the per capita cost being practically the same under independent as under dependent school boards, and that upon the whole the schools in cities having independent boards are more efficient. All the evidence is in favor of the independent board."

## Interschool Athletics Stimulate Academic Study

In order to be eligible for participation in New York interscholastic activities, a candidate must have passed at least nine school credit hours in the preceding semester, according to a new ruling of the State public high school athletic association; and in order to represent a school, a passing grade must be maintained in at least 14 hours of work.

# Los Angeles School Board Maintains Sixteen Day Nurseries

*To Care for Young Children of Working Mothers, and Thus to Permit Older Children to Attend School. Babes Under Nine Months Old Not Received. Cooperation with Kindergarten. Small Fees Required of Parents. Careful Attention to Diet and Sanitation. Instruction in Child Care to Mothers and Older Children*

By ETTA PROCTOR FLAGG
*City Supervisor of Home Economics, Los Angeles, Calif.*

DAY NURSERIES under the city board of education of Los Angeles are past the experimental stage. There are now 16 city day nurseries, and several more schools are asking to have them established immediately.

These day nurseries, as far as possible, cooperate with the kindergarten and, in a number of the schools, the kindergarten and the nursery are adjoining. This makes an ideal situation for cooperation between the two departments. New buildings that are erected in localities where there is most need for nurseries are making provision for them.

Day nurseries are an outgrowth of compulsory education. In many of the poor and foreign districts boys and girls are kept at home to take care of younger children while the mothers, and in some cases the fathers who had to take the place of both father and mother, worked. At first these younger children were brought into the regular classroom, but this was very unsatisfactory and day nurseries proved a suitable solution of the problem.

### *Establishment Due to Private Initiative*

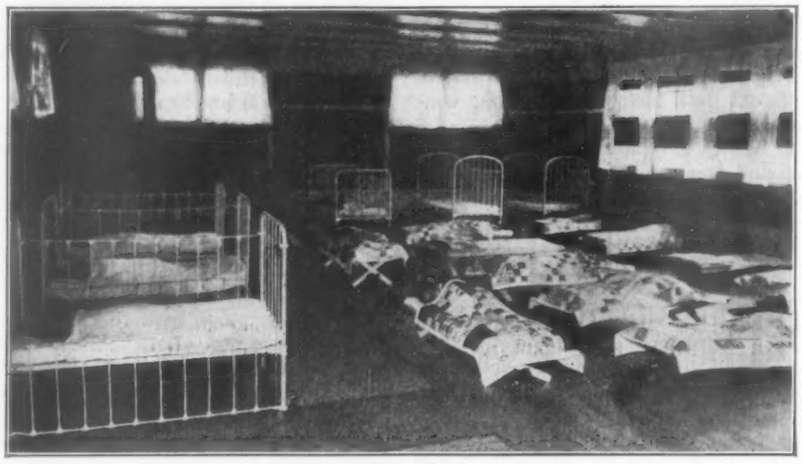
At first the nurseries were maintained by the parent-teacher associations, but in 1917 the parent-teacher associations ceased paying the nurses and other expenses, and the entire responsibility for the nurseries was taken over by the city board of education. Thus the nurseries became an integral part of the Los Angeles city school department.

The day nurseries have become a source of real help to many working mothers. Not only do these mothers know that their young children are well cared for while they are at work, but through the nurse they receive many helpful suggestions on the proper care and feeding of their children. This is especially true in the foreign districts, and we are finding that these nurseries are proving one very effectual means of Americanization as well as an additional bond between home and school.

Most nurseries keep open eight hours each day, the children being taken home by the parents or older brothers or sisters in the evenings. Our aim is not to relieve parents of the responsibility of their children, but to aid these parents to care for the children more efficiently.

The financial condition of the family is considered when children are received. Unless in dire poverty, each child pays a small fee in order that parents may not feel themselves objects of charity. It is a prime aim of our department to destroy the spirit of mendicancy where it exists in parents and to foster self-reliance and self-respect.

The money paid is expended for the food served the children and for incidental expenses, including laundry. Three meals are served daily. Breakfast at 9 o'clock, a wholesome hot dinner at noon with a simple dessert, and another light meal at 3.30 p. m. Each child has a plentiful supply of milk. Balanced menus suitable for the different ages, receive careful consideration from our dietetics department.



Rest period after noon lunch

Children are admitted to the nursery by the principal of the school, in the same way that children are admitted into the kindergarten. The nursery proper admits children from 9 months to kindergarten age. Only in emergency cases are children under 9 months admitted; otherwise, many mothers would be tempted to wean their babies too soon, in order that they might go to work. If a baby under 9 months is taken, its food is prepared according to a prescription from the clinic doctor, and the weight carefully taken at least once a month.

No child is admitted unless clean and pronounced in good health by the school nurse. The day nursery children are under the supervision of the school nurses, the school doctor, and the city health department.

The district home teacher investigates all cases and only those are admitted who in her judgment are worthy. Larger children are allowed to share instruction, entertainment, and protection of the day nursery until some one is at home to care for them.

The nurse is always an English-speaking woman of good character who has had experience with children, preferably a woman who has had nursery or kindergarten training or both. These nurses live in their own homes. Their day consists of eight hours—in most places from 8.30 a. m. to 4.30 p. m. In some districts, however, the nurseries are open from 7 a. m. to 6.40 p. m. to meet the working conditions better. In these nurseries the nurses work by relays, so that no nurse is on duty longer than eight hours per day. Each nursery building is kept by the janitor of the school, as any other room is kept.

A daily register is kept in each nursery giving attendance, diet served, number of

baths, medical aid, the amount of daily fees, and the name of the child with addresses of residence and place of employment of parents. This report is rendered to the home economics office once a month.

The nursery rooms are light, clean, bright, and cheery, with plenty of fresh air and sunshine. Americanization and patriotism are taught from the beginning. All children salute the flag of the United States once every day, even though they are too young to repeat the pledge.

Much attention is given to the formation of regular habits. All meals come at the same time each day. Careful consideration is given to the children's rest period directly after the noon meal. Each child has a cot upon which he takes a nap for an hour or more. Beds are provided for the small babies. The rooms are properly ventilated and heated, and quiet prevails so that each child has a rest, and almost without exception a nap when he gets accustomed to the regular time.

Notices are sent to the parents urging the continuation of regular meals and sleep while the children are home Saturday and Sunday.

The closest attention is given to these children's morals and manners. They are always under the supervision of a matron whether in the yard at play, in the sleeping room, or while eating.

The children play in the yard after their morning lunch and again when the afternoon nap is over, except when the weather is rainy or stormy; then their play is conducted on the porches or indoors, with plenty of fresh air.

Americanization classes take advantage of this department. While their little ones are cared for in the nursery the mothers receive instruction.

Groups of large girls in the foreign classes, especially those who have small brothers and sisters in attendance, are brought into the nursery for special instruction in the care of the small children and preparation of their food and clothing, also in story telling and games.

From time to time the city fire department inspects the nurseries. The nursery children have fire drills at the same time the school is drilled. The pupils of the highest grade in the school go to the nursery and each carries a baby to safety. At first some of the babies resent this procedure, but after a few drills they consider it "a lark."

Pupils of Almeda School, Baltimore, discussing school activities with the principal

## This School a Factor in Neighborhood Development

Auxiliary pupil activities play a large part in the administration of Almeda School, Baltimore. That school is in the heart of the industrial district of the city, and the majority of the population are of foreign birth. Much social work in the neighborhood is necessary, but great care is exercised to avoid overdoing it, for that might defeat its purpose.

The school is rapidly becoming a community center. The school nurses have made a thorough study of the environment and direct the work with confidence and success. The people are learning that privileges carry responsibilities and are taking an active part in community affairs. In the school itself the pupils are organized in many extra school activities, and take great delight in them. These activities include: Boys' club, girls' club, junior safety council, junior Red Cross, dramatics, safety guards, junior traffic squad, current events clubs, readers' clubs. The accompanying illustration shows a group of pupils in consultation with the principal, Milton L. Regus, about some of these activities.

The gymnasium of the school is constantly used by the physical education teacher. In the afternoons and evenings classes are held for young people employed during the day. This is used, too, as an opportunity of encouraging attendance at evening schools.

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High-school attendance in Indiana increased 55.95 per cent during the past 5 years. Increase in the elementary grades was 14.91 per cent, according to statistics compiled by the State department of public instruction of Indiana.

## Cooperation for Weekday Religious Instruction

The Board of Education of Wilmington, N. C., has adapted the time schedule of the New Hanover High School to give opportunity for religious instruction to students from 9 to 9.50 on Wednesday mornings. Upon written request of parents, the students are permitted to attend classes in religious education, which are conducted under the direction of a board of religious education appointed by the ministerial association. Each denomination or faith prescribes its own course of study and its own instructors, principally from the clergy. The several groups meet at designated places, usually in churches near by, and the students are organized by high-school classes. The rules are as nearly as practicable the same as govern school class procedure.

More than 50 per cent of the total high-school enrollment is enrolled in classes for religious education. The attendance and interest on the part of students and teachers promise success. The plan is now operating for the first half year. Methodists, Baptists, Presbyterians, Episcopalians, Lutherans, Catholics, and Hebrews are participating.—*W. A. Graham, Superintendent of Schools.*

## Educational Ratings Promote Higher Standards

Every county in Virginia in 1923–24 received a general educational rating of 50 or higher, with 100 as the standard of excellence. According to announcement of the State department of education, when the plan of ratings was inaugurated, in 1919–20, 23 counties received less than 50; in 1922–23, the number under 50 was reduced to 3, and in 1923–24, no counties were so rated. Fifty-eight counties were rated above 70 per cent.

# New Books In Education

By JOHN D. WOLCOTT

*Librarian Bureau of Education*

BEACH, WALTER GREENWOOD. An introduction to sociology and social problems. Boston, New York [etc.] Houghton Mifflin company [1925] xiv, 369 p. 8°.

The social sciences are receiving constantly increasing attention as subjects of study in our schools and colleges. A single introductory course to all the social sciences is also growing in popularity in these institutions. The author has prepared this book in the belief that sociology is perhaps the best approach to all the social sciences. His text is designed throughout to meet the needs of introductory college classes. The book presents in simple and concrete fashion the elements of sociological theory illustrated by social problems. The scope of the subject matter is comprehensive, including essential contributions to the study of society and its problems of economics, political science, psychology, ethics, and education. The social aspects of education are the subject of one chapter.

COX, PHILIP W. L. Curriculum-adjustment in the secondary school. Philadelphia [etc.] J. B. Lippincott company [1925] viii, 306 p. tables, diagrs. 12°. (Lippincott's educational guides, ed. by W. F. Russell.)

Part I of this book deals with the purposes and problems of secondary education, and with the factors that complicate the problem at this time. Part II discusses the procedure and results of scientific method in the field of curriculum-making. Part III presents a series of sixteen guiding principles for the adjustment of the secondary curriculum. Each principle is explained and justified, and then further interpreted through its application to school curriculum problems; first, as regards present practice in secondary schools, and second, as suggesting what schools can do to bring their practice into conformity with the principle. The object is to aid promoters of a sounder secondary curriculum, by supplying them with principles based on philosophy, psychology, and a comprehensive knowledge of contemporary life.

EBY, FREDERICK. The development of education in Texas. With an introduction by William Seneca Sutton. New York, The Macmillan company, 1925. xv, 354 p. 8°.

The progress of education in Texas affords an especially striking subject for the historian, because, as the author of this record says, in no other State has the struggle of such diverse traditions and ideals been so prolonged and bitter. The history of the Texan school system will therefore appeal strongly to students of educational development, both in Texas and elsewhere. This volume details the story from the earliest historical sources of the educational system of Texas to the present day, and analyzes the causes of the various phases of development.

KELLY, FREDERICK J. The American arts college; a limited survey, with the aid of a subvention from the Commonwealth fund of New York. New York, The Macmillan company, 1925. xii, 198 p. tables, forms. 12°.

The survey here reported is a study of actual aims, conditions, and educational practice in a selected group of typical colleges of liberal arts. The colleges upon which the inquiry was concentrated number about twelve representative institutions, including State universities, endowed universities and colleges, and one city university. In addition to the data collected from these institutions, information from many other colleges and universities was also used by the investigator. Considering that the time of only one person was available for a few months for the study, the field chosen has been covered very comprehensively. The various statements of aims of the colleges of arts and sciences, and the criticisms of these statements, are first compared, and on this basis a new statement of aims is formulated by the author. Deans of many other colleges than the twelve mentioned, and a list of representative high school principals, were also called upon for their reactions concerning the aims of colleges. Information for the entire study was gathered from representative students and alumni as well as from faculty members. The other topics taken up are college courses and curricula, educational and vocational guidance of students, college methods of teaching, measuring the achievements of college students, and extra-curricula life of the college. The final chapter gives a general summary and conclusions on the topics investigated, and suggests allied subjects for needed research. Dr. Samuel P. Capen contributes an introduction to the volume.

MARTIN, G. CURRIE. The adult school movement; its origin and development. London, National adult school union, 1924. xviii, 435 p. front. (port.) plates. 12°.

A history of adult schools in England, with a description of their present status and a forecast of their future development, is here given. Sir Michael E. Sadler contributes an introduction, in which he commends the volume. He says that the adult schools described are the nearest English parallels to the people's high schools of Denmark.

METCALF, MARGARET F. Motivated primary activities for rural teachers. Chicago, Beckley-Cardy company [1925] 143 p. front., illus. 12°.

Prof. M. V. O'Shea, in the introductory note, says that this book should contribute toward making the teaching in rural schools both more interesting to young pupils and more valuable to them in the intellectual development. The author has undertaken to guide and inspire rural teachers to an intelligent appreciation of child nature and the things children like to do.

RICCIARDI, NICHOLAS. The boy and his future. New York, London, D. Appleton and company, 1925. xvii, 119 p. 12°.

The author, who is commissioner of vocational education of California, offers in this book aid and guidance to parents in one of their most difficult problems, the preparation of a boy for the time when he must launch out in life for himself. The book gives the necessary information for equipping the boy for the place in life for which he is best fitted. Dr. Robert J. Leonard, of Teachers College, Columbia University, says in the preface that study clubs of parents and teachers will find fruitful material in this volume; and best of all, boys themselves will find suggestive questions and discussions which will direct their thinking and stimulate their ambitions.

ROBERTS, S. C. Manual arts; educational and vocational. Boston, R. G. Badger, The Gorham press [1924] 277 p. front., illus. 8°.

The writer of this book has been an observer of the teaching and practice of manual arts since the introduction of the Russian system, and his purpose is to set forth a type of practice growing out of long observation and experience, and which he believes to be in harmony with current educational theory, and which at the same time includes valuable vocational training.

SMITH, NILA BANTON. One hundred ways of teaching silent reading. For all grades. Yonkers-on-Hudson, N. Y., World book company, 1925. x, 149 p. 8°.

This manual offers the teacher 100 ways of providing individual, diversified, and well-organized practice in silent reading.

SMITH, RICHARD M. From infancy to childhood. The child from two to six years. Boston, The Atlantic monthly press [1925] ix, 105 p. 12°.

The author here presents a sequel to his earlier work entitled "The baby's first two years," to aid parents in guiding the health and habits of children during the years from two to six.

SOWERS, JOHN IRVING. The boy and his vocation. Peoria, Ill., The Manual arts press [1925] 198 p. illus. 8°.

The matter of vocational and life guidance, according to the experience of the author of this volume, needs to be inspirational and stimulating as well as didactic. The boy needs to be given vision and helpful ideals about such common things as work, character, thrift, health, and citizenship, and to be awakened to the necessity of a training that will fit him not only for a vocation but for all the obligations of life. The object of these pages has been to express these things to the boy in an intelligible and usable form. The material is most suitable for use in regular class work in the eighth and ninth grades.

WEEKS, ARLAND D. Psychology for child training. New York, London, D. Appleton and company, 1925. xi, 312 p. 12°.

Parents will find this volume designed to aid them in bringing up their children in the best possible manner, according to the approved principles of psychology. It describes the native tendencies of childhood, accounts for the typical behavior of childhood, and offers practical suggestions for training in the light of such knowledge. The first chapters deal principally with instincts, after which an historical review of methods of child training is given. The latter part of the book deals directly with problems of the development of the child and his adjustment to environment.

WINSLOW, LEON LOYAL. Organization and teaching of art; a program for art education in the schools. Baltimore, Warwick & York, inc., 1925. 147 p. 8°.

The author of this book is director of art education in the public schools of Baltimore. Assuming that all teachers of drawing and allied subjects should possess at least an appreciative knowledge of the entire field of art education, he presents a practical working program of instruction for the elementary and secondary school in both fine and industrial arts.

A demonstration of preschool parent training will be conducted in Georgia through the State Parent-Teacher Association. The Laura Spellman Rockefeller memorial fund has made a grant of $4,000 a year for three years to be used for this purpose.

# *Trend of College Entrance Requirements*

IN THE EARLIER COLLEGE DAYS entrance was obtained only by passing examinations in the various subjects required. At the present time no fewer than 10 different methods of admission to college are in use in the various colleges of the United States. All colleges will admit on examination, and all but a very few will admit on certificate. Neither method has proved entirely satisfactory, and two new methods have recently appeared which bid fair to develop into the most important methods of the future. The first of these methods is the plan initiated at Harvard in 1911, and the second is the psychological examination plan initiated at Columbia in 1919. As a part of each method a complete set of data concerning the applicant—his record, aspirations, interests, etc.—as well as special recommendations are required. The results of the use of these new types of admission methods have indicated that each has a high selective reliability, when the subsequent records of the students are considered.

There is a very definite movement to select from the field of candidates only those who are considered the "best risks." The method most commonly used is to take only those who are in the upper part of the high-school graduating class, those who have made better than passing marks, etc. Eleven per cent of the colleges now use some such procedure as against one per cent in 1913. This field promises the most significant developments in the articulation of high school and college during the next few years.

Enrollment in liberal-arts colleges has increased more than 500 per cent since 1890. The resources of the colleges have also increased greatly but not in proportion to the number of students. The result is that colleges are crowded and are beginning to limit the size of entering classes. A number of methods are used to select applicants, among which such elements as interests, abilities, capacities, preparations, intellectual records, ambitions, and the like are receiving most attention. Limitation promises to become the rule rather than the exception within a very few years.

—*HARRY CHARLES McKOWN*
*In Bureau of Education Bulletin, 1924, No. 35*

# *Optimism in Education*

WHATEVER may be the weakness in our American system of education, there is sincere ground for the belief that our people will find their way to a system of schools that will make for good citizenship and promote a high quality of human life.

The reason for this expectation lies in the deeply rooted faith of Americans in education. None of us may know precisely the type of school best suited for the training of a democracy. We may be in doubt as to the studies that will most directly develop sound thinking. We may have exaggerated notions of the time and the money that ought to be spent in special forms of education. But, back of all our uncertainty, there lies deep in the conscience of the American people the conviction that in education lies the hope of the future. No people more sincerely believe in public education than Americans. For the education of their children they are ready to make great sacrifices, and if for a generation or two they offer up this devotion at the altar of a mistaken ideal, nevertheless the devotion is sincere.

In time this spirit will go far to help the people themselves to find their way to a conception of education that shall be disciplinary yet generous; whose fruitage will be the development of those forms of schools that make for sound training and for true culture. If one could not believe this, his anticipations for the future of democracy would be dark. But no one can come closely in contact with the schools of English-speaking North America, in the United States and the Dominion of Canada, without a firm conviction that the inherent desire for education and the sound common sense of this people will in time find their way to a system of schools which will serve for the development both of intelligence and of character. The widespread discontents touching the weaknesses and the mistakes of the past years are themselves indicative of a sound attitude. Slowly, but none the less surely, we will as a people turn our faces toward an ideal of education which rests upon simplicity, sincerity, and thoroughness. To face in this direction is the beginning of true progress.

—*HENRY SMITH PRITCHETT.*